#### ACADEMY. THE

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Readers are reminded that the mention of New Books, Articles, &c., in our lists is intended as a guarantee of their importance. The Editor of THE ACADEMY cannot undertake to return communications which are not asked for.

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# Literature.

## NORSE MYTHOLOGY.

La Fascination de Gulfi (Gylfa ginning). Traité de Mythologie scandinave, composé par Snorri, fils de Sturla, traduit du texte norrain en français et expliqué dans une introduction et un commentaire critique perpétuel par Frédéric-Guillaume Bergmann. Deuxième édition, augmentée de notes additionnelles et d'un répertoire général alphabétique. Strasbourg et Paris: Treuttel et Würtz.

Le Message de Skirnir et les Dits de Grimnir (Skirnisför-Grimnismâl). Poëmes tirés de l'Edda de Saemund, publiés avec des notes philologiques, une traduction et un commentaire perpétuel par F.-G. Bergmann, ex-doyen de la Faculté des Lettres de Strasbourg. Strasbourg et Paris: Veuve Berger-Levrault et Fils.

Die Edda, die ältere und jüngere, nebst den mythischen Erzählungen der Skalda übersetzt und mit Erläuterungen begleitet von Karl Simrock. Vierte, vermehrte u. verbesserte Aufl. Stuttgart: Cotta.

THE general knowledge of the subject and character of the Edda possessed by all educated persons seldom extends to a direct and familiar acquaintance with the two works which bear that name; this, at least, is the case in England and France, and if the remark applies in a less degree to Germany, this is chiefly owing to Simrock's successful exertions in the work which has just reached its fourth edition. I say successful, for Bergmann's labours were much less fortunate, in spite of his indefatigable zeal, in spreading a knowledge of Northern antiquities in France, though his first attempt in that direction was made as long ago as 1838 (Poëmes islandais, &c.). There are several ways of explaining his want of success: the old Norse poetry and mythology does not appeal so closely to the French mind and taste as to the German, or rather the Teutonic. The national interest in the subject is also wanting which enabled Simrock to begin his introduction with the words: "That the gods of the North were ours also has long been certain; the brother stocks, German and Norse, had in all essentials a common belief as well as common speech, laws, and customs; Odhin is Wuotan, Thor, Donar; Asen and Ansen, Alfen and Elfen, Sigurd and Siegfried, are only other forms of the same mythical names." Finally, the extent and thoroughness of Bergmann's erudition has probably had a deterrent effect upon the majority of readers, and caused his works to make their way but slowly, as in the case of the Fascination de Gulfi, which has been ten years in reaching a second edition. He is anxious to trace every peculiarity home to its origin, and to make every difficulty so clear to his own mind that, where reliable evidence is wanting, he takes refuge in conjectures, in the course of which the phrases "sans doute" and "probablement" occur much VOL, III,-NO. 40.

too frequently, and substitutes, with a daring worthy of Niebuhr, his unsupported hypotheses for established facts. He is as much at home with the language and antiquities of the Pelasgi, the Scyths, and the Getae as with that of the ancient Scandinavians; and the general reader, at least in France, does not care to follow his minute explanations of every detail in so wide-reaching a plan. To the, alas! small class of more conscientious students, Bergmann's

works may be warmly recommended.

The first of the works before us contains, to begin with, a summary survey of the rise and development of religions and mythologies in general, and then a circumstantial account of the Norse mythology and its history, of the customs and usages therewith related, and of the sources from whence our knowledge of it is derived—that is to say, the so-called Elder and Younger Edda. Edda means properly "Great-grandmother," and, according to Bergmann, the collection known as the Younger Edda received the name from the Skald Olafr (d. 1259) who applied it in the sense of "annosa narratrix," because Gylfa ginning, which stands at the head of the collection, relates the old Northern myths. Bergmann gives a full account of all the literary works of Snorri Sturluson (d. 1241), the author of this portion and of the Bragaroedur, and of the methods and aim kept in view by him; and he takes occasion, by the way, to convey information on a variety of subjects which would scarcely be looked for in such a place—as, for instance, the literary contests of early times, of which the Wartburg-krieg, so well known in German literary history, was one; the origin of the narrative framework to groups of tales used by Boccaccio and Chaucer; the titles of books amongst the ancients, in the East and in the middle ages; the glacial period; the distinction between the expressions "scientifique" and "littéraire;" the etymology of the Mediæval Latin sunnis, &c. &c. All these things are interesting and instructive, and though the remark "sed nunc non erat his locus" might suggest itself, they are really a symptom of his desire to exhaust every topic which is related, however remotely, to his principal theme. Thus he shows that "Great-grandmother," though it may seem a strange name for a mythological treatise, is well grounded, and has parallels in every literature; the foundation of the Gylfa ginning is a literary contest, which at the same time serves as a framework; then there is an obvious reference to the glacial period in one part of the Norse cosmogony and theogony; the author argues that Snorri's intention and method was "scientific" rather than "literary;" and, finally, the name of the goddess Syn is connected etymologically with sunnis, and this again with two quite distinct families of words, &c. &c. In the etymology and interpretation of the names of persons and localities, Bergmann has done his uttermost for the reader's instruction, and as he generally gives the grounds on which they are based, it becomes possible to attach an idea to every name. At the same time, there are serious objections to his practice of always making use of the equivalent he has invented for each proper It is tiresome to have to read always Enclosmitoyen for Midgardr, Troupiers-uniques for Einheriar, Halle des Occis for Valhöll (Valhalla), Loki de l'Enclosextérieur for Utgard-loki, Meunier for Miölnir, Large-Éclat for Breidablick, &c. &c. A better plan would have been to retain the old names, and give their meanings in a separate alphabetical table. A serious reader need not, however, be discouraged by these peculiarities from availing himself of the author's varied stores of learning. Besides the subjects already alluded to, there is a particularly good explanation of the origin of the custom of swearing brotherhood in arms under a strip of turf (p. 351), and of the reason why

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the gods begin again after the renewal of the world to play at the same game as they had played before when they were

Some of Bergmann's explanations differ from the common traditional ones. According to him the god Thor generally goes on foot, because in the seventh century A.D., when the Scandinavian population began to be divided into peasants and nobles, Thor became the patron of the former, and followed their custom in this respect, whilst Odin, the god of the warlike aristocracy, seldom appears except riding on his steed Sleipnir. Again, the ordinary view of Freyja's car drawn by cats is that the cats refer to her position as goddess of love, as the corresponding Egyptian goddess Bubastis is represented with a cat's head. Bergmann on the contrary thinks that the cat, a domestic animal whose favourite resting-place is on the hearth, belongs to Freyja as the household goddess, whose name in fact means ruler or mistress in the sense of a wife or mother of a family. The points on which he differs from his predecessors are too many for enumeration, and I will only add that, while constantly referring to the religion of the ancient Getae and Scyths (according to him the fathers and grandfathers of the Scandinavians) as he conceives it to have existed, he pays no attention to other religions excepting those of the Slavonians and Indians, both of which have, according to Bergmann, features in common with the Norse mythology. Here we may take leave of Bergmann's Gylfa ginning, which, together with Bragaroedur, forms, as we have observed, the chief part of the Younger Edda of Snorri Sturluson. The remainder, consisting of a Norse Ars Poetica, was added after Snorri's death (1241), and the whole collection, in Bergmann's opinion, first received the name of Edda after the middle of the thirteenth century. This Younger Edda is in prose, whereas the so-called Elder Edda contains a collection of mythological and epic songs, of which some may have been in existence before the time of Snorri and known to him, though the work did not take its present shape till the beginning of the fourteenth century according to Bergmann (the middle of the thirteenth according to other authorities), and was not called Edda and ascribed to Saemund the Wise (d. 1133) until the sixteenth century. On this point, however, Bergmann is at variance with himself, for in the Fascination, p. 41, he says: "Le nom de Edda était inconnu à Saemund et à Snorri; le premier n'a jamais composé le Recueil de poëmes qu'on lui attribue et qu'on appelle aujourd'hui l'Edda de Saemund; le second n'a jamais eu entre les mains un tel recueil, composé par Saemund." Yet in his other work, Le Message de Skirnir, he speaks of the "homme érudit (probablement Saemund le savant) qui à la fin du onzième siècle a formé et composé par écrit la collection des chants appelés poëmes de l'Edda de Saemund." In both these passages Bergmann gives a reference to an earlier work, Les Chants de Sôl (Solar Liôd), poëme tiré de l'Edda de Saemund, publié avec une traduction et un commentaire, Strasbourg et Paris, 1858, p. 18, where he says: "Quant à la formation du recueil de l'Edda de Saemund, de fortes raisons nous empêchent de l'attribuer à Saemund." It would therefore seem that the passage in Le Message de Skirnir is a slip of the pen or the memory; but in the Chants de Sôl Bergmann adduces arguments, which I am inclined to regard as conclusive, to prove that Saemund was really the author of the Solar Lidd, and Simrock agrees with him so far as to admit that this is probable. It is to be regretted that the date of the other songs in the Elder Edda cannot be determined with the same precision; but unfortunately with the exception of Skirnisför and Grimnismal (for which see below) this is far from being the case, though we must suppose at least a portion of |

the poems, especially the mythological ones, to stretch back into the period of heathenism. Bergmann usually gives the reasons which have determined him in his choice of dates, so that in these questions the reader is always enabled to form an independent judgment. When he omits this precaution, his views have less chance of acceptance, as for instance when he says that in about the third century B.C. the Scandinavians invented new divinities who were no longer zoomorphic but anthropomorphic (Fascin. de Gul. p. 201; cf. p. 219); that the Sviones and Gauts, Getic tribes, settled in Scandinavia in the fourth century B.C. (p. 263); that in the sixth century B.C. Targitavus, the anthropomorphic sun-god of the Scythians, was looked upon as the protector of the family and the nation (p. 265), &c.

The second of the works before us takes its subject from the Elder Edda, and is in some sense a continuation of the one which first made Bergmann favourably known in the learned world, namely, Les Poëmes islandais (Voluspa, Vafthrudnismal, Lokasenna), tirés de l'Edda de Saemund et publiés avec une traduction, des notes et un glossaire par F.-G. Bergmann, Paris, 1838. Since then considerable progress has been made in investigations of this kind, the results of which have been utilised in the Message de Skirnir, &c.; and the introductions and commentary supply a compressed summary of the author's previous researches into Northern mythology, for which the nature of the two poems gives a suitable opportunity. The translation is in prose, and like that of Gylfa ginning, word for word, so that any one desirous of studying the language of the ancient North apart from its mythology will find it a useful assistant. I will only mention two passages in the introduction to Skirnisför, which are of comparative general interest. Bergmann derives the German name for February, Hornung, from horn, which, he thinks, in German idiom, means hard ice (Old Icelandic hiarn, frozen snow), so that January, when the frosts are most severe, would be called the *great horn*, and February the *little* or younger horn. The Greek ηρως, "hero," as well as the Latin verres, he derives from the Sanskrit varahas, "boar," because the warlike nature of this animal makes his name a suitable designation for a famous warrior; he does not, as he might, quote the example of William de la Mark, the famous Sanglier des Ardennes, in support of his suggestion. From the introduction to Grimnismâl, I will only quote Bergmann's division of the mythological poems of the North into three distinct periods, of which the first extends approximately from the fourth to the seventh century A.D., and bears a lyric-epic character. The poet, who was always anonymous, generally gave a short prose introduction before plunging medias in res. The second period, which reached into the eighth century, produced no new myths, as the Scandinavian mythology had attained its highest point in the seventh century, but it preserved those already existing, and handed them down both in writing and tradition. The character and form of these still anonymous poems is dramatic-didactic, that is to say, dialogue alternates with narrative; and there is a didactic or literary purpose which demands a poetical framework in addition to the prose introduction. In the third period, which begins in the eighth century, political and religious changes took place which modified the character of the poetry, and introduced Scalds of known name, who only made use of the heathen mythology occasionally, and for purposes of illustration. Skirnisför and Grimnismål belong to the second of these periods. Bergmann's translation and explanation of the latter poem differs very considerably from those in favour with his predecessors; this is especially the case with regard to strophe 45, pp. 257 and 305.

We have only now to notice Simrock's work, which differs

from those already discussed inasmuch as it gives a com-

plete translation of the 37 songs of the Elder Edda, and from the Younger, both Gylfa ginning, Bragaroedur, and the mythical tales of the Skalda which are united to the Younger Edda in our own manuscripts as well as in published editions. The translation aims at preserving the alliterative metre of the poetic Edda, so it has naturally less verbal accuracy than that of Bergmann; the notes and introductions to the Elder Edda are comparatively scanty, those on Grimnismâl and Skirnisför together occupying only eight pages against 110 of Bergmann, and the Younger Edda has no notes, as it is supposed to be sufficiently explained by what goes before. The explanation of this difference no doubt is that Simrock presupposes in his readers a considerable acquaintance with the Edda and its subjects, and though his preface reproaches Germans with their indifference to these studies, the number of editions reached both by this work and his Deutsche Mythologie shows that he really finds a large and intelligent public. Still any one wishing to acquire a knowledge of Norse mythology cannot do better than begin with Bergmann, whose merits as a thorough master of Scandinavian language and antiquities have received honourable recognition in Sweden and Denmark; and if the student then wished to proceed further, he would be able under Simrock's guidance to complete his knowledge of both Eddas, especially the Elder. Before leaving Simrock (whose work I may discuss at greater length elsewhere), I will allow myself two observations. In the Fafnismál (Simrock, p. 200) it is related that Sigurd could understand the voice of birds as soon as he had tasted the heart's blood of Fafnir, transformed into a dragon. This seems to point to an old Oriental superstition, for in Philostr. Vita Apollon. 1, 20, we read: ἐστι γὰρ τῶν Αρα-βίων ἤδη κοινὸν καὶ τὸ ὀρνίθων ἀκούειν μαντενομένων ὁπόσα οἰ χρησμοί. ξυμβάλλονται δὲ τῶν ἀλόγων, σιτούμενοι τῶν δρακόντων οι μεν καρδίαν, φασίν, οι δε ήπαρ; and the same is said of the inhabitants of the Indian town Paraka (ib. iii. 9): λέγονται δὲ καὶ τῶν ζώων ξυνιέναι φθεγγομένων τε καὶ βουλομένων (var. βουλευομένων), σιτούμενοι δράκοντος οι μεν καρδίαν οι δε ήπαρ. On the first passage Olearius says: "Gemina et ex Arabico scriptore Damir habes apud Bochart. Hieroz. p. i. 1. 1, c. 3, fin." My second remark refers to the famous Danish king Hrolf Kraki (the German Knirps, mannikin, dandiprat, not Krähe, kraka, "crow," as Simrock translates it on p. 353). Of this Hrolf the Skalda relates (Simr. p. 353) that he was once being pursued by king Adils and his Swedes, and escaped with his followers by scattering gold along the road, which his pursuers stopped to pick up. This trait is paralleled in *Buddhaghosha's Parables* (by Capt. Rogers and M. Müller, p. 43), where the fugitive king Udena uses the same stratagem against the hostile king Kanddapaggota; and again in a Teleutic legend (W. Radloff, Proben der Volkslitter. der Türkischen Stämme Südsibiriens, Petersb. 1866, vol. i. p. 210), where the following story is told of Schydar Ubang: "He sold all his horses, cows, sheep, and other possessions for copper money, with which he loaded 300 camels. He crossed the waters of the Irtish, and on the further side he poured out all the copper on the ground. The white king's (i.e. the Czar's) three generals and 300 soldiers who were bringing 30 waggons of munitions with them, gathered up the copper money and loaded it upon the 30 waggons. Schydar Ubang said: 'Take the money strewn upon the ground, but do not pursue me.' Thus he deceived them with money, and went back and betook himself to the Chinese." See also Frontin. Strateg. 2, 13, 1: "Galli pugnaturi cum Attalo, aurum omne et argentum, certis custodibus tradiderunt, a quibus, si acie fusi essent, spargeretur, quo facilius praeda hostem impeditum effugerent." 2. "Tryphon, Syriae rex, victus, per totum iter

fugiens pecuniam sparsit, eique sectandae Antiochi equites immoratos effugit." Of course these different stories of scattering gold and money may have arisen independently of each other.

In conclusion, I can only recommend the above three works once again most warmly to all classes of readers, and must not omit to quote the last words of Bergmann's preface to La Fascination de Gulfi:—"Cet ouvrage se vend au profit de la Bibliothèque de Strasbourg, qui, entièrement brulée, est à reconstituer." Bergmann was one of the most distinguished professors and dean of the faculty of letters in the former university of Strasburg, whence his interest in the restoration of its library.

Felix Liebrecht.

Sing-Song: a Nursery-rhyme Book. By Christina G. Rossetti. With 120 Illustrations by Arthur Hughes. Routledge.
The Princess and the Goblin. By George Macdonald. Strahan.
Through the Looking-glass, and what Alice saw there. By the Author of Alice's Adventure in Wonderland. Macmillan.

More Nonsense; Pictures, Rhymes, Botany, &c. By Edward Lear.

IT is pleasant to see children's literature get better as it does year by year in England. This season in particular has produced a crop of books that are delightful for themfor the children—but more delightful still, perhaps, for some among their elders; since no child, in the most enchanted eagerness of its single-minded attention and fancy, knows so full or so subtly mingled a pleasure in the best of these things as the properly constituted grown-up reader. The adult spirit here finds the reward of its affliction of self-consciousness. While the attention, the fancy, can let themselves go, and be as those of a child, following the fun or movement of the tale with all the old mirth, the old breathlessness, there lingers, beneath such abeyance of criticism, a more complex self looking on somewhere in the background, aware of the revival of ancient spells, and pleased to feel them work:-you have your own enjoyment to enjoy as well as its object, you have a hundred causes of pathetic entertainment side by side with the old absorption.

The volume written by Miss Rossetti, and illustrated by Mr. Hughes (not, by the way, a matter of story-telling but of song-singing), is one of the most exquisite of its class ever seen, in which the poet and artist have continually had parallel felicities of inspiration-each little rhyme having its separate and carefully engraved head-piece. In the form of the poetry the book answers literally to its title, and consists of nothing but short rhymes as simple in sound as those immemorially sung in nurseries—one only, of exceptional length, containing as many as nine verses-and having always a music suited to baby ears, though sometimes a depth of pathos or suggestion far enough transcending baby apprehension. But both in pictures and poetry, provided they have the simple turn, and the appeal to everyday experience and curiosity, which makes them attractive to children at first sight and hearing, the ulterior, intenser quality of many of these must in an unrealised way constitute added value, we should say, even for children. The pieces range, indeed, as to matter, from the extreme of infant punning and catchy triviality to the extreme, in an imaginative sense, of delicate penetration and pregnancy, with an almost equal grace of manner in either case; here is an example of the latter :-

"What are heavy? sea-sand and sorrow:
What are brief? to-day and to-morrow:
What are frail? spring blossoms and youth:
What are deep? the ocean and truth."

And this is illustrated with one of the best of Mr. Hughes' landscape cuts—a still, flat sea flooded with moonlight, under

a black sky, with a child's sand-castle going to pieces at its edge. There are some dealing with death—a motherless baby, a ring of three dancers from which one is caught away-in just the right mood of tender thought and plaintive wonder, striking the mere note of loss, unexplained disappearance, the falling of an unknown shadow, with the loveliest feeling; and many about out-door things, birds and flowers, animated with an intimate fanciful charity, or having sometimes a little ethical conclusion, of which the lesson cannot fail to find its way home. In tuning the simplest fancies or hints of fragmentary idea, Miss Rossetti cannot lose the habit or instinct of an artist; and the style and cadence of these tiny verses are as finished and individual, sometimes as beautiful in regard of their theme, as they can be, and not much recalling any precedent, except in a few cases that of Blake. We would direct the reader to pp. 6, 13, 21, 38, 40, 120, for perfect scraps of art in their way. Mr. Hughes' illustrations, many of them lovely and full of imagination as we have said, and always seconding the suggestion of the verse, are not quite equal, and the sentiment is sometimes in advance of the design: but what can be more delightful than the child feeding birds at the winter window on p. 8, or its vis-d-vis supping porridge in the ingle, or the lambs and ducklings of pp. 27 and 29, or the landscapes of pp. 35 and 79, or the pathetic dance of p. 73, or the pancake-making (79), or, indeed, a full half of them all.

Mr. George Macdonald is a poet also, and in his Light Princess had already achieved a humorous and imaginative success in that most difficult of all tasks, the invention of contemporary mythology for children. We should say that with this writer, more than most, it was hit or miss; other pieces in the volume containing The Light Princess we should count misses. Here, again, and on a larger scale than before, the hit is palpable and delightful. The Princess and the Goblin does not perhaps contain any invention so felicitous as that of the child to whom an evil fairy had denied the physical property of gravity; but it is a thoroughly beautiful and enjoyable story, and its machinery of princess and nurse, heroic miner-boy, evil subterranean goblins, and beneficent supernatural grandmother in her tower, thoroughly calculated to take hold of the imagination of readers of all ages. The suppressed personage within our grown-up reader will be knowing enough to observe, from his background, that there is allegory in all this; aware of the religious and ethical pre-occupations of the writer's genius, he will guess what the beneficent grandmother is meant more or less explicitly to stand for-will, if he chooses, be able to note how it is even the moral and religious foundation that has stimulated the writer's invention and developed the turns and incidents of the story. But all this really does not at all spoil this charming fable, as it has so many others; the narrative and scenic parts of it are conceived with a vividness of their own, alongside of the ethical part of the conception; the characters are delightfully dramatic, and there is nothing strained in the tone of purity and elevation which is given to them. Against unction, when unction passes into such bright imaginative devices as these, and only gives a peculiar ring and fervour to their pathos or their humour, the most uncompromising opponent of moral story-writing can have nothing to protest. Mr. Macdonald in this story is long, detailed; but he has the art of having been there (so to speak); and the attention never flags during all the adventures of the little Irene with her mystic friend in the tower, and the brave Curdie with his goblin enemies in the mine. The sympathetic talent of Mr. Hughes in this volume again has been employed in furtherance of the writer's fancy, and his designs (though not so fully in his choicest manner, perhaps, as those we last spoke of) are very delicate and ingenious.

We pass from poetical enchantment to prose fun in passing from the work of Mr. Macdonald to that of Mr. "Lewis Carroll"—from the transformation scene to the harlequinade, if one may venture that imperfect parallel. Through the Looking-glass is a sequel to Alice in Wonderland, and has the misfortune of all sequels—that it is not a commencement. An author who continues himself loses the effect, although not the merit, of his originality; and in its originality lay half the charm of the old "Alice." No reader will have the sense of freshness and the unforeseen, amid the burlesque combinations which the little lady encounters in her new dreamland, which he had amid those of the old; hence the inevitable injustice of a comparison. But, making allowance for the sense of repetition, we think the invention here shows no falling-off in ingenuity or in the peculiar humour, which mixes up untransformed fragments of familiar experience with the bewilderment of the polite child amid people of irregular manners and a topsyturvy order of existence. There is perhaps a little too much complication in the machinery of chess-board geography prevailing in Looking-glass Land, and a somewhat meaningless eccentricity in some of the transformations; but the ingenuity which traces out the remotest consequences of its data cannot be too much praised,—as the property of space in Looking-glass Land by which to walk towards a thing is to move away from it, and the inverse disposition of the letters in the amazing nonsense-poem of "Jabberwocky." The introduction and conclusion of the adventure are particularly well devised and written. Every reader will be charmed to meet his old friends the Hare and the Hatter (still engaged upon his tea and bread and butter) dignified with the Anglo-Saxon orthography Haigha and Hatta (Alice has evidently been having lessons in English history); and amused at the forms under which the child's matter-of-fact dream realises the ideas of Tweedle-dum and Tweedle-dee, Humpty Dumpty, and all the provoking brotherhood of mythic personages who insist on taking all words literally, and regarding every question as a riddle. If this prose extravaganza, this matter-of-fact absurdity, has a certain ugliness at times which seems to run near the edge of the vulgar, that is its only weak point. The clever and mannered humour of Mr. Tenniel's designs illustrates their theme

A stout, jovial book of *More Nonsense*, by Mr. Edward Lear, transcends criticism as usual. We may just indicate the interest of the preface, in which the author explains the genesis of this class of composition; we may point out the great felicity of some of the new botanical figures and names—"Nastycreechia Krorluppia," "Stunnia Dinnerbellia," and the rest; we may protest, with deference, against the absence of the charms of rhyme in the alliterative pieces at the end of the volume; and then leave the reader to his unmolested entertainment.

Prince Hohenstiel-Schwangau, Saviour of Society. By Robert Browning. London: Smith, Elder, and Co., 1871.

Mr. Browning has always had a predilection for the type of characters which the moralist finds it convenient to class as hypocrites. An artist who begins to analyse character quite disinterestedly is met very soon by the difficulty which character he is to analyse, the character which the man indulges or the character which he assumes; nor is it allowable to cut the knot and say that a man is what he allowables to be, and is not what he assumes himself to be. The assumption seriously influences his conduct, and it is quite as essential to his comfort that the assumption should impose upon himself as that it should impose upon others;

if it come to the point, he would even prefer to allow himself in less rather than give up the assumption altogether. In fact, the study of human character, in general, might almost be resolved into an attempt to ascertain the true relations between what we claim to be and what we tend to be; and this problem is obviously best approached in the individuals in whom the contrast assumes the most piquant form. In the same way the ethical distinction between honest men and rogues is replaced by the æsthetical distinction between those who recognise and accept and those who rebel against the inevitable contrast between the ideal and the natural self. On the one side we have Mr. Sludge and Bishop Blougram and the bishop who orders his tomb in St. Praxede, and the other bishops who display their successful or unsuccessful diplomacy in the Return of the Druses and The Soul's Tragedy; on the other side, there is the noble Djebal, one of the loftiest of all tragic characters, and the pitiful Chiappino and poor Mr. Gigadibs. It is worth noticing that Djebal comes nearest to the common conception of a common imposter, just because his enthusiasm is too deep not to be practical, too sustained not to become unscrupulous, while the worthless Gigadibs is too shallow to be unsincere.

Of course the Saviour of Society belongs to the more intelligent if not to the more estimable class. machinery of the poem is intricate, and it is difficult to believe that the whole of it was written upon a single plan. For 142 pages out of 148 the Saviour of Society, in exile, is explaining his career to a young lady; nearly 60 pages of the explanation are a history of his reign as it ought to have been, which is carried down to the end of the Italian war. Here the speaker discovers that it is five o'clock in the morning, opines that the young lady is asleep, moralises on the impossibility of a really sincere apologia pro vita sua. In the last half-page we learn that he has not yet begun his second exile, has no young lady to talk to; but the whole reverie has arisen out of the possible consequences of an ultimatum, which he has still to decide upon sending. On the other hand, he says early in the poem :-

"I could then, last July, bid courier take Message for me, post-haste, a thousand miles."

These lines and the whole context prove that the speaker was intended to be actually in exile, not merely anticipating what he would say when he was. It seems as if the poet had felt the ideal history of Prince Hohenstiel-Schwangau's reign was getting too long, and had altered his plan in order to cut it short with effect: in a way the effect is gained, but it is at the price of an inconsistency which makes the last six pages very obscure. Another matter for regret is that the history of Hohenstiel-Schwangau should be simply identical with the history of France. One can understand the author's motive for choosing to write of Hohenstiel-Schwangau; but the choice entailed obvious obligations. It would have been very indecorous for Johnson to make the senate of Lilliput debate an expedition to Canada, and it is little better to make Thiers an historian, and Victor Hugo a poet of Hohenstiel-Schwangau.

The Saviour of Society is, as might be expected, a very interesting personage, a little tedious to those who are beginning his acquaintance, but decidedly attractive and even fascinating when we come to know him well. He is represented as a kind of democratic man of order, a Sulla of the proletariat, incapable of founding anything, but capable of

organizing and consolidating much.

His exposition begins by pointing out that even when he is playing with a sheet of blotting paper, he prefers drawing a line between two blots that are there already to making a third, which proves a predisposition on his part to avail him-

self of existing materials. Some sixty lines are allotted to bring this piece of information adequately home to the reader, and of the sixty quite the usual proportion are elliptical, and none are empty. It is an extreme result of the author's deliberate system of endeavouring to present the processes not merely the products of thought. With this predisposition he enters upon life determined to please himself and serve God by making the best according to his own judgment of the faculties of which he finds himself in possession. The example of the courier, cited above, who must reach his journey's end in time, but may select the stages, and halt or hurry at his own discretion, serves to illustrate the kind and the extent of the responsibility under which the speaker conceives himself to act. Others, he is willing to allow, may have something like what is ordinarily called conscience to direct the details of their conduct; he has to judge exclusively by the light of general principles, by the facts of life, by the signs of the times. He finds himself inclined and qualified to govern a world that has laboriously and gradually reached a complicated harmony, which, though most imperfect, is tolerable. He is filled with respect for this order and compassion for the multitude-

"Men with the wives and women with the babes,"

who desire nothing better than to be allowed just to live and work under it. He determines to devote himself to the defence of the mediocre positive results of civilisation against the enthusiasts who would destroy them in the pursuit of incompatible ideals. If the average duration of life were a hundred years instead of twenty, he would risk the responsibility of carrying out one of the ideals he advocated himself in the days when he was only a voice like his critics. As it is, he consoles himself with the thought that the low interests which unite the many are more in one sense than the high interests which divide the few who had better do their best—

"Without this fractious call on folks to crush The world together just to set you free."

The accusation of indolence and indecision is met by a capital story of the Laocoon, which, it seems, was once exhibited without sons or serpents, and taken almost universally for a figure of Somnolence. One critic only whom the Saviour of Society would choose for his biographer said—

"This attitude Strives with some obstacle we do not see."

The faults of his reign are attributed to an excess of sagacity which led him to profit by the crime of his predecessors to occupy Rome, to avoid the chance of civil war by a coup d'état incompatible with ideal loyalty, to wean Hohenstiel-Schwangau from war by false pretences, to obtain territorial advantage by the Italian war, to temporise with the papacy, and, above all, to try to found a dynasty.

The exposition is less perplexed than in Mr. Browning's earlier works, perhaps less richly coloured; though it would be difficult to parallel the musical elevation of the following

passage :-

"Ay, still my fragments wander music-fraught, Sighs of the soul, mine once, mine now, and mine For ever! crumbled arch, crushed aqueduct, Alive with tremors in the shaggy growth Of wild-wood, crevice-sown, that triumphs there, Imparting exultation to the hills! Sweep of the swathe when only the winds walk And waft my words above the grassy sea Under the blinding blue that basks in Rome,—Hear ye not still—"Be Italy again'? And ye, what strikes the panic to your heart? Decrepit council-chambers,—where some lamp Drives the unbroken black three paces off From where the greybeards huddle in debate, Dim cowls and capes, and midmost glimmers one

Like tarnished gold, and what they say is doubt, And what they think is fear, and what suspends The breath in them is not the plaster patch Time disengages from the painted wall Where Rafael moulderingly bids adieu, Nor tick of the insect turning tapestry To dust, which a queen's finger traced of old; But some word, resonant, redoubtable Of who once felt upon his head a hand Whereof the head now apprehends his foot."

G. A. SIMCOX.

## NOTES ON LITERATURE AND ART.

The articles of Chief Justice Cockburn on Junius are unavoidably postponed for one or two numbers.

The Westminster Review for this month has a very interesting but incomplete article on Greek tragedy and Euripides. There is a good account of the conditions under which a great dramatic era is possible. It is shown how after a certain stage in dramatic art as in other art the execution tends inevitably to overpower the idea; and how Euripides coming at this stage made the most of the romantic and picturesque possibilities of Greek tragedy. Much is made of analogies from painting too suggestive not to be misleading. For instance, we are told that Correggio gave a disproportionate development to some elements of beauty which were subordinate in Raphael, and that Euripides gave a disproportionate development to elements of interest that were subordinate in Sophocles. But the pictures of Correggio, and for that matter the plays of Fletcher, are thoroughly complete and homeoficers for the most part the plays of Euripides are and harmonious; for the most part the plays of Euripides are The point of the attacks on Euripides is missed. Those who say that Euripides debases tragedy are quite aware that he wrote splendid poetry: they would be quite ready to admit that the ethical elevation of Sophocles could not be maintained for ever. Their quarrel with Euripides is not that his creations are romantic rather than classic; but that their habitual background is a vulgar selfish sophistry.

M. Gaidoz, in the same place, publishes some interesting translations of the Breton poetry inspired by the events of the late war; which appears in most cases to have been written not by the people but certainly for it, since the bourgeoisie look down on their native idiom. The writer believes that the Breton peasants, like the Welsh, would learn to read readily if they had books in their own language, and it is curious that the Legitimists and Republicans have to bid against each other in patois for the country vote. The manifestoes of the former are said to be the best models of style, as many of the clergy have made a special study of Breton literature.

A shareholder in the "Société d'Acclimatation" sends to Fraser a short account of the fate of the Jardin and its inmates. Some few of the most valuable animals were sent out of Paris just before the commencement of the siege, and the remainder were reluctantly disposed of to the butchers, fetching, however, their full money value. The gardens themselves were devastated under the Commune, and the society is treating with the city of Paris for the repurchase of the land ceded to it, but it offers to superintend the reorganization of the work, and a fresh company is spoken of to carry this out on a larger scale than before.

Afzelius, the venerable collector of Swedish folk-songs, died on the 25th of September last at Euköping, where he had been pastor for forty-nine years. His great work, Svenska Folkets Sagohäfder, was completed in 1870, the last part containing the history of Charles XII., since when no true popular legends have come into being.

We have received a specimen number of a new series of the Oesterreichische Wochenschrift für Wissenschaft und Kunst, which formerly appeared for a few years as supplement to the Wiener Zeitung. There ought to be plenty of room for such a periodical, especially if it does not give too much space to the miscellaneous feuilleton element. In this number the principal

papers are by A. Mussafia on F. Diez, apropos of the 50th anniversary of his doctorate; and Fr. Lippmann, "Die Styltendenzen im Kunstgewerbe." The author thinks that the initiative unreality of modern art and architecture can only be superseded by a healthier and more independent tone of workmanship, on condition that the Renaissance is frankly accepted as its base and starting-point.

There is a Breton work now in the press, to be published next spring, by Mrs. Legoffic, Lannion, which will have some interest for the literary world at large. It is a mystery (*Trajedi*, as the Bretons call it), the subject of which is the well-known Purgatory of St. Patrick. The most striking peculiarity of this mystery is that a few scenes are nearly identical with some passages in a drama of Calderon, who has treated the same subject. It will be interesting to trace these resemblances to an original work. The mystery will be published without French translation, as it is intended for the Breton-reading public only. Bretons are very fond of reading—and of performing—mysteries; but when such a performance takes place in some Breton village, it is apt to pass unnoticed, even in France.

The discoveries made in the neighbourhood of Bologna must take the first place amongst the events of archæological interest which have occurred during the past year. A full account will be found in a paper, "Sugli Scavi di Certosa, read by the architect Signor Antonio Zannoni, at the inauguration of the museum of Bologna, Oct. 2, 1871, and which is now printed. Signor Zannoni has excavated an entire necropolis, near the Campo Santo of Certosa. It is supposed that the ancient town Felsina had here its burying-place. No less than 365 graves have been opened with various results. A peculiar interest attaches to these discoveries, because they throw light on the life and culture of Etruria circumpadana, a district in which, as compared with Etruria media, very little has been found. From the position and state of the bodies, and character of the contents of the tombs, it must be inferred that much the same habits and much the same point of taste prevailed as in middle Etruria. Amongst the stele-shaped monuments are many with reliefs, but none with inscriptions. The style in every instance shows Greek influence. Bronzes are numerous, and so are ornaments of bronze, of silver, of ivory, of gold, &c. Relatively to these, the discoveries at Marzabotto, a small railway station south of Bologna, are unimportant (see Gozzadini's Di un antica necropoli a Marzabotto nel Bolognese), though at any other moment they would excite much interest.

Dr. Heinrich Schlieman reports (Allgemeine Zeitung, Jan. 7) his excavations on the fields of Troy as stopped by the arrival of winter, but confidently asserts that early next spring he will be in a position to demonstrate the exact position of Troy, 35 feet below the present level (!).

In November last Hans Makart publicly exhibited in his atelier paintings on which he has for some time past been engaged. They were executed on the commission of Herr Nic. Dumba, and consist of a large square ceiling-picture and a number of large and small portions of a frieze, forming together the entire decoration of a room. On three sides there are tolerably considerable spaces, broken only by occasional doors, but on the fourth a succession of windows leaves only narrow strips of wall, and these are filled with allegorical single figures. The principal composition extends itself unchecked over the ceiling. The subject is Die Vereinigung der praktischen mit den idealen Mächten des Lebens. Agriculture and Industry, Art and Music, are brought before us by a vast number of figures, genii, and demigods, conceived partly in an allegoric, partly in a realistic sense. These are intermixed with all the sense-ensnaring decorative accompaniments special to Makart's genius. Festoons and fruits, costly vessels, and all sorts of beasts, are introduced in wild and various interchange. We are told that many of the subordinate incidents are very happy; for instance, a dance of children round a fruit-tree, the countinghouse studies of the genius of trade, and a scene in the studio of a little portrait painter. But, however brilliant may be the display in this new work of an enviable wealth of individual types, and magnificence of colour bravura, there is no advance in the

qualities of sound drawing and modelling, or in refinement of artistic style. This is what the uncompromising admirers of Makart have announced to us from year to year, but as yet no trace of such an advance can be perceived.

The auction Gsell will take place in Vienna on March 15. The exhibition of the works about to come into the market is already going on. The catalogue, which is not yet complete, will contain from fifty to sixty illustrations. The gallery contains many pictures of the first rank, both by ancient and modern masters. For example, Franz Hals, Rembrandt, Metzu, Ruysdael, Cuyp, Teniers, v. d. Meer von Haarlem, Veronese, Tintoret, Tiepolo, Cranach, may be cited amongst the ancient; and the modern are represented by Waldmüller, Pettenkofen, Troyon, Meissonier, Decamps, Couture, and others. The collection of prints and etchings has a great repute; and, finally, there are numerous precious objects and antiques.

# New Books.

ADLER, F. Das Pantheon zu Rom. Gedruckt auf Kosten der archaeol. Gesellsch. Berlin: Besser'sche Buchhg.

Behn, Mrs. Aphra. Plays, Histories, and Novels of the Ingenious. 1724-35. Small paper. 6 vols. (21. 12s. 6d. and 41. 4s.) Pearson. Burns, R. The Original MS. of Tam o' Shanter and The Lament of Mary Queen of Scots. Reproduced by the Photo-chromo-lith. Process. With an Introduction by Moy Thomas, and a Glossary. Adams and Francis.

EASTLAKE, C. L. History of the Gothic and Medieval Revival in England. Longmans.

FERRAZZI, G. J. Enciclopedia Dantesca. Vol. IV. Bibliografia. Venezia: Münster. MARTIN, H. Études d'Archéologie celtique. Notes de voyages dans

les pays celtiques et scandinaves. Paris : Didier. Petzholdt, J. Bibliographia Dantea ab anno MDCCCLXV inchoata.

Accedit Conspectus Tabularum Dio. Com. vel stilo vel calamo vel penicillo adhibitis illustrantium. Dresdae: Sumpt. Schönfeld.

SCHULZE, E. Beschreibung der Vasensammlung des Freiherrn Ferdinand von Leesen. Teubner.

TAINE, H. History of English Literature. Vol. II. Translated by H. van Laun. Edmonston and Douglas.

# Philosophy and Physical Science.

The Works of George Berkeley, D.D., formerly Bishop of Cloyne: including many of his Writings hitherto unpublished. Prefaces, Annotations, his Life and Letters, and an Account of his Philosophy. By Alexander Campbell Fraser, M.A., Professor of Logic and Metaphysics in the University of Edinburgh. 4 vols. Oxford: Clarendon Press, 1871.

THE merits of Professor Fraser's edition of Berkeley have been so generally recognised that in the present article, which from causes that could not be prevented is too late in its appearance, it is needless to notice them in detail. The only fault that we have to find with him is that he has in a certain sense over-edited his author, and tends to make him mean too much. In addition to valuable analyses and explanations prefixed to the several treatises, Professor Fraser accompanies them with a running criticism and elucidation at the foot of the page, and finally, in the volume containing Berkeley's life and letters, writes a general essay on his philosophy and on "his function" in relation specially to Hume and Kant. It is in this essay chiefly that he seems to us to carry too far the interpreter's licence of unfolding what his author "would have said," and partly by translating him into the language of later philosophy, partly by reading his earlier treatises in the light of certain flashes of Platonism that appear in the Siris, to obscure the edges of the very definite, though not far-reaching, theory which Berkeley completed in his youth, and which we only confuse by supplementing with the deeper, but insufficiently articulated, speculations of his later life. The limits, indeed, of Berke-

leyanism proper are very clearly pointed out by Professor Fraser himself up and down in his notes, and in attempting to state them we do not suppose ourselves to be bringing before him anything which he has not himself fully considered, but merely to be supplying a corrective to the over-estimate of Berkeley which some readers might derive from his work.

Berkeley's strength and weakness as a speculator alike lay in his practical interest. Of a strange precocity in philosophy, unparalleled probably except in the case of Schelling, he yet had not the spirit for pursuing truth to the bottom of her well. In the Commonplace Book kept during his residence at Trinity College, Dublin (now first published by Professor Fraser, and which alone would make his fourth volume worth buying), we already find his theory readymade, only lacking the perfect literary form of the treatises which he afterwards published. The question is as to the constructive value of this theory; of its validity for the destructive purpose, for which Berkeley intended it, no one who understood it has ever doubted. He found practical irreligion and immorality excusing itself by a theory of "materialism"—a theory which made the whole conscious experience of men dependent on "unperceiving matter." This, whatever it might be, was not an object which man could love or reverence, or to which he could think of himself as accountable. Berkeley, full of devout zeal for God and man, and not without a tincture of clerical party-spirit, felt that it must be got rid of. He saw that the "new way of ideas" with which his teacher Molyneux had familiarised him had only to be made consistent with itself, and the oppressive shadow must disappear. Ideas according to that "new way" (or, to speak less ambiguously, feelings) make up our experience, and they are not matter. Let us get rid, then, of the self-contradictory assumption that they are either copies of matter-copies of that of which the sole and simple differentia is that it is not an idea-or its effects —effects of that which we can only describe as the unknown opposite of the only efficient power with which we are acquainted—and what becomes of the philosopher's blind and dead substitute for the living and seeing God?

The object was a worthy one, and doubtless Berkeley has had his share in the most obvious service which philosophers render to their kind. He has done something to save reflecting men from the bondage which comes of misinterpreting formal ideas; but, as we think, not quite so much as Professor Fraser would have us believe. He took-as might be expected of a philosopher whose latest systematic treatise was published when he was 28-too short a cut to his end. He worked merely with the means which Locke put into his hands, and thus, while his destructive method was invincible, his untempered mortar would not really hold together the fabric of knowledge and rational religion which he sought to maintain.

It is true that his polemic, according to his own intention, was directed not against the supposition of the reality of substance as such, but against its reality as the antithesis of mind, or, in the language of the time, against "unthinking substance"—"body" or "matter." To show the untenability of such a supposition upon the principles of Locke was not difficult. The question is whether upon those principles anything survives but the succession of feelings severally "real" only in the moments of their presence to consciousness and as manifold in their diversity as are those moments; and whether Berkeley has any new principles to substitute for those of his master. If these questions are answered in the negative, it will follow that the title, which Professor Fraser (though with much abatement) seems to claim for him, of having in some sort anticipated

Kant, is not fairly earned; that in result, though not in intention, he merely did imperfectly what Hume did perfectly; that his polemic is valid not against "unthinking" substance and causality merely, but against substance and causality altogether; not merely against the reality of "outwardness" to the mind, but against the reality of outwardness as an intelligible relation between bodies; and that thus finally, to say nothing of its bearing on the belief in God and immortality which it was meant to uphold, his doctrine, fairly carried out, rendered the knowledge of nature no less than mathematical knowledge an unaccountable fiction.

It scarcely needs to be said that the governing notion of Locke's philosophy had been that of the antithesis between "facts" and "things of the mind"; and a moment's consideration will show the difficulties which this antithesis has in store for a philosophy which yet admits that it is only in the mind or in relation to consciousness-in one word, as "ideas"—that facts are to be found at all, while by the "mind" it understands an abstract generalisation from the many minds which severally are born and grow, sleep and wake, with each of us. The antithesis itself, like every other form in which the impulse after true knowledge finds expression, implies a distinction between the seeming and the real; or between that which exists for the consciousness of the individual and that which really exists. But outside itself consciousness cannot get. It is there that the real must at any rate manifest itself, if it is to be found at all. Yet the original antithesis between the mind and its unknown opposite still prevails, and in consequence that alone which, though indeed in the mind, is yet given to it by no act of its own is held to represent the real. This is the notion which dominates Locke. He strips from the formed content of consciousness all that the mind seems to have done for itself, and the abstract residuum, that of which the individual cannot help being conscious at each moment of his existence, is or "reports" the real, in opposition to the mind's creation. This is feeling; or, more strictly, it is the multitude of single feelings, "each perishing the moment it begins," from which all the definiteness that comes of the mind's own act in the way of composition and relation must be supposed absent. Thus carried out, the antithesis between fact and mental fiction becomes self-destructive. Detach all mental accretions, and there remains nothing in which one feeling differs from another but the degree of its liveliness. It is to this, as constituting the distinction of the real from the unreal, that Hume in his treatise on Human Nature finally comes, and Berkeley himself was quite aware that his erasure of Locke's inconsistencies left him no criterion of reality external to the feeling itself. The essential distinction between his result and Hume's reduces itself to this, that whereas with Hume that which in the language of later philosophy is called "objective order" becomes an unaccountable fiction of thought, and reality becomes merely a name for the liveliness (of indefinite degree) with which one feeling, if itself lively, recalls another; with Berkeley, on the other hand, reality means an order of sensations in a divine consciousness to which their succession in us, according as they are vivid and coherent or the reverse, does or does not correspond. It is this divine consciousness which with him takes the place which "qualities of matter" or "nature" held with Locke, as that which our ideas, if real and adequate, represent.

To have demonstrated such direct dependence of human experience upon God, Berkeley reckoned his great service to mankind, by which he had silenced the atheists for ever. The value of the service to his own generation is not in question. Each generation requires practically to be delivered from the "bondage of matter" according to the

philosophical method with which it is familiar. But in order to estimate its value as a permanent contribution to speculative theism, we must ask two questions. Taking the three steps of Berkeley's short and easy method-sensible things are merely sensations, sensations imply a sentient subject, this subject must be one whose consciousness is absolutely permanent and continuous, i.e. God-is not the process, by which the first step is established, itself fatal to the third? And supposing this difficulty to be got over, is not the one subject, whose being is proven, simply the μέγα ζώον of the crudest form of pantheism rather than the Christian God? To the first of these questions the answer must ultimately depend on the meaning to be attached to the "percipi" with which Berkeley identified the "esse"-a meaning which Professor Fraser in several places (e.g. on pages 373 and 387 of vol. iv.) seems to us unwarrantably to extend. From the introduction and earlier sections of the Principles of Human Knowledge it is quite clear that the "percipi" with him primarily meant present feeling and no more. A thing is; that is, I now feel: it was; that is, I did feel. This doctrine can legitimately lead to no result but Hume's. It is fatal alike to the reality and knowability of permanent subjects or "spirits," as much as of bodies and their relations. There is evidence from the Commonplace Book that Berkeley had at least an occasional forecast of this result, and in his published treatises we no doubt find him feeling his way towards a different account of the "percipi" according to the exigencies of his theistic theory. Thus we find him in section 89 of the Principles of Human Knowledge quietly introducing "spirits and relations" as being no less than "ideas," objects of human knowledge, in virtual contradiction of the opening section of the same treatise. But no trace appears of any such account of the "percipi," into which "esse" is resolved, as would justify us in interpreting it as the "intelligi." "Spirits and relations" are brought within the region of knowable reality when they are wanted, but there is no reasoned vindication of their position, and at so late a period in his life as the publication of the Analyst we find Berkeley reverting to his original sensationalism for a weapon against the mathematicians. The imaginary "real" outside consciousness he had effectively disposed of but for any effective replacement of it by an intelligible and necessary element within consciousness we search his pages in vain. For his theistic purpose he had proved either too much or too little. The latter part of the Siris is mainly of interest as showing that the theistic instinct (if we may say so) survived his system, and was feeling after a philosophical apparatus wholly different from his original one. Such a statement as that "the principles of science are objects neither of sense nor imagination; intellect and reason being alone the sure guides to truth," is wholly irreconcilable with the doctrine of his earlier treatises. The worst of it is that, while it is merely "shot from a pistol," the earlier doctrine is fully worked out, and can alone be fairly treated as the Berkeleyan system. Professor Fraser is quite aware of the distinction, but in "developing Berkeley's thought" he seeks to introduce a consistency which we think unreal between his earlier and his later mind, and in so doing detracts from the "propædeutic" value of the study of Berkeley, which is in brief that it shows the necessity of Kant. T. H. GREEN.

# Intelligence and Notes.

#### Zoology.

Embryology of Arthropoda.—Dr. Dohrn's Untersuchungen über Bau und Entwicklung der Arthropoden (parts I and 2) attempts to follow out the line of genealogical investigation which is an offshoot of the

Darwinian theory, and has been so brilliantly initiated by Fritz Müller in his essay, Für Darwin. Furnished with the maxim, that "the ontogenetical development is a short and incomplete representation of the phyllogenetical development," Dr. Dohrn reviews the embryology of the different classes and families of the Arthropoda, to ascertain where they agree and where they differ. Thus he has examined the embryology of the Curners the Progressiales. Peninger Travia. Polinyare they agree and where they differ. Thus he has examined the embryology of the Cumacea, the Pycnogonideae, Praniga, Tanais, Palinurus, and Scyllarus, Limulus and some other Crustacea, of which he gives a detailed account, accompanied by numerous illustrations. Amongst these monographs those on the Pycnogonum, Palinurus, and Limulus are especially remarkable. As regards Pycnogonum, Dr. Dohrn states that the greater part of the family undergo an extensive metamorphosis; and he proves that the so-called "palpi" and "female feet" are both typical pairs of appendages, which are sometimes wanting in the adult, but are always developed in the larvæ. The number of these typical appendages being thus fourteen, Dr. Dohrn adduces it as a strong argument against those zoologists who, like Gerstäcker and others, place the Pycnogonidæ amongst the Arachnidæ on account of some superficial similarities of the adult. Dohrn adds to his account the description of the development of Phoxidilidium, which differs count the description of the development of Phoxidilidium, which differs in a remarkable way from the other Pycnogonidæ, as there occurs no larval condition whatever. Instead of it there is a larval skin, representing the lost larval form. This larval form he refers to Nauplius. With regard to Palinurus and Scyllarus, Dohrn proves that in spite of Professor Claus and Mr. Spence Bate's doubts, Phyllosoma is the true larval form of these Macrura. He succeeded, by applying a constant stream of sea-water running over the eggs of both the Crustacea, to breed and hatch them. The larval forms produced were Phyllosomæ. Limulus has received much attention of late in connection with the alleged disease of still-latent Mr. Williams. discovery of a trilobite with legs. Mr. Billings in Canada and Mr. Wood-ward in England, as well as Mr. Cope and Mr. Packard in America, have put forth opinions about these animals, and they seem to agree in grouping the Trilobites together with the Isopoda, and in excluding Pterygotus as well as Limulus from the Trilobites.\* Dr. Dohrn treats these questions in an elaborate article in the Jenaische Zeitschrift für Medicin und Naturwissenschaft, a periodical known as being the organ of German Darwinism, receiving its contributions from Gegenbaur, Haeckel, Fritz Müller, Wilhelm Müller, and others of the Jena school. Dr. Dohrn arrives at the conclusion that Limulus, Pterygotus, school. Dr. Dohrn arrives at the conclusion that Limulus, Pterygotus, and the Trilobites ought to form one great family, whose connection with the other Crustaceans is still doubtful. He refuses to admit any with the other Crustaceans is still doubtful. He refuses to admit any connection of Limulus with the Isopoda, as suggested by Mr. Woodward and Professor Huxley. The same periodical contains the first part of a memoir, by the same zoologist, entitled, "History of the Crustacean Tribe, based on Anatomical, Embryological, and Palæontological Facts." Dr. Dohrn here endeavours to give the outlines of the history of the crustacean tribe, beginning from the Nauplius, and tracing the diverging lipse to the different crustacean families. diverging lines to the different crustacean families. As regards Insects, Dr. Dohrn only gives some hints in the preface of his second part. He says that he took up the subject of insect embryology at the same time with the Crustaceans, but he soon arrived at important discoveries bearing upon the old problem of the homology between Arthropoda and Vertebrata. We shall probably have to wait for the result of these researches till Dr. Dohrn has finished building the zoological station at Naples, with which he is at present almost exclusively occupied.

Micrococcus in Measles and Scarlet Fever.—An important paper, if the facts stated in it be corroborated by other and independent research, is contained in the last part of Hallier's Zeitschrift für Parasitenkunde (Band iii. Heft 2), written by Dr. Hofmann. This practitioner treats measles and scarlet fever by the hydropathic method, that namely of enveloping the patient with due precaution in wet linen cloths, and thus promoting a free perspiration, which lowers the temperature of the body and quickly cures the disease. Hallier and others maintain that these diseases are occasioned by the presence and development of certain fungi in the blood, which they state can be seen in it by the microscope in the form of minute cell-like bodies or spores, the so-called micrococcus. It occurred to M. Hofmann to collect the perspiration obtained from the patients enveloped in the wet bandages, and to send it to M. Hallier with a request that he would examine it for the micrococcus. M. Hallier replied that micrococcus was abundant, and at once proceeded to institute experiments with a view of determining whether the specific disease could be propagated by inoculation or other means. The results of their researches have not yet been published, but if successful, they will go far to show that these affections are really due to the presence of a fungus in the blood, for when it is present the disease exists, and when removed it ceases, whilst the fluid excreted from the skin of the sick, and known to contain the fungus, is capable of generating disease in the healthy.

Mr. Woodward has carefully reviewed Dr. Dohrn's investigations in a paper communicated to the Geological Society on December 20, 1871, entitled "Further Remarks on the Relationship of the Xiphosura to the Eurypterida and to the Trilobita," in which he maintains that these orders should be still retained in the class Crustacea.

Inland Locality for Marine Insects.—At a recent meeting of the Norfolk and Norwich Naturalists' Society, Mr. Barrett read some further notes on the coast-insects found at Brandon, which he considered confirmatory of the opinion expressed by him in a former paper, that these species have occupied this district, now far inland, from the time when it was part of the sea-coast. Amongst other coast-species mentioned by Mr. Barrett was Agrostis Tritici, and of this species he remarked that, although it occurs sparingly in inland heaths, all the specimens are of a dull brown colour, while those found on the sea-coast are generally distinctly marked and richly coloured; all those taken by him at Brandon had precisely the deep style of colour and markings which characterize it on the sea-coast. Agrostis cursoria, although very abundant on the sea-coast, is not to be found at Brandon; and this Mr. Barrett considers a very strong proof that the other strictly littoral species enumerated have not reached their present situation by migrating across the intervening land from the present sea-coast. This species he thinks it not improbable was an immigrant from the eastward at a comparatively recent date, and that it has attained its greatest abundance on the spots where it first obtained a footing. It would not, therefore, have been an inhabitant of this portion of the post-glacial coast.

Application of Photography to Illustrations of Natural History.—Hitherto memoirs on natural history have been but seldom illustrated by the aid of photography (for instance, a memoir on fossil rhinoceroses by Dr. Kaup), the want of permanence of the common photographic prints having made them mere auxiliaries to lithography. Prof. Alexander Agassiz proposes now to apply the new Woodbury and Albert processes of carbon-printing to the illustrations of his forthcoming Revision of the Echihi. There can be no doubt that photography offers the great advantages of rapidity of production and cheapness, but we doubt whether it will replace lithography to any great extent. Its use will be limited to rigid objects; and even then it will not always satisfy the demands of scientific enquiry. In numerous cases, as, for instance, in faint and incomplete traces on a fossil, or in anatomical preparations, we have to give the outlines of certain structures greater distinctness than they have in nature, in order to render important characters more apparent. When we examine the specimen of photographic printing (of Echinocidaris functulata) issued by Professor Agassiz, we cannot help thinking that a skilful lithographer would have produced a drawing quite as accurate and faithful to nature, and certainly with the sculpture much more clearly delineated. However, it is satisfactory to see this method put to the test, and we wish every success to this highly important undertaking of Professor Agassiz.

Observations on Parthenogenesis.—A most important article, entitled Quelques Observations de Parthénogenèse chez les Lépidoptères, has been published by H. Weijenbergh in Archives néerlandaises, vol. v. pp. 258-264. In August 1866 the author found a male and female of Liparis dispar in the act of fecundation, and obtained some 500 eggs, from which, in the year following, the caterpillars were reared. The perfect insects appeared in July. Every precaution was taken to keep the two sexes separate: this was easily effected, as they could be distinguished in the larval state. Of about sixty females two-thirds laid eggs without fecundation; but the number of eggs was much smaller than under normal conditions, none of the females depositing more than twenty. The author obtained altogether about 400 unimpregnated eggs, but only some fifty caterpillars were reared from them. In due time they passed through the metamorphosis, the number of females being fourteen. Strange to say, these virgin insects, born of virgin mothers, deposited again a number of eggs, from which again caterpillars were reared in April 1869, and perfect butterflies in July. Their eggs, however, appear not to have preserved vitality, having been found dried up in the spring of 1870. Thus, after the normal impregnation of a female, eggs were laid by three successive generations without fecundation. As far as is known at present, this extraordinary power of reproduction is possessed by a comparatively small number of Insects, the subject having been best studied in the common bee and in Aphides.

On the Period of Sexual Differentiation in the Ova of Insects.—Siebold and Bessel had proved that in Insects the differentiation of the sex takes place in impregnated eggs before the larvæ are hatched. In a highly interesting paper published in the 48. \*\*Jahresbericht der Schlesischen Gesellschaft f. vaterländ. Cultur (Breslau, 1871), p. 143, Dr. Gustav Joseph shows that the sexes are differentiated before the ova have come in contact with the \*sperma virile\*. He observed that with a little practice two different forms of ova can be distinguished in \*Liparis dispar\*, Orgyia gonostigma and antiqua. The ova of the one form are comparatively thicker, with the greatest transverse diameter nearly in the middle of the egg, and with the opposite poles scarcely differing in shape; these ova of this kind are less numerous than the other, and invariably contain females. Those of the latter form are comparatively slender, with the greatest diameter nearer to the upper pole, which is more obtuse than the lower; as has been stated, they constitute the majority, and male insects are hatched from them. Now, as these two kinds of ova are found in the oviducts of females reared from

caterpillars and kept apart from males, it is evident that the differentiation of the sexes is independent of the *sperma virile*, which has simply a vivifying function, and is even not absolutely necessary for the reproduction of life in insects endowed with the power of parthenogenesis.

Ceratodus.—Dr. Günther's Description of Ceratodus, a Genus of Ganoid Fishes recently discovered in Rivers of Queensland, Australia, has been issued. This paper contains a description of the whole anatomy with the exception of the nervous and circulatory systems, which will form the subject of a separate memoir. The author proves the close affinity of this fish to Lepidosiren and Dipterus (and, consequently, also to Ctenodus), and arrives at the conclusion that the ganoid and cartilaginous fishes should be united into a separate subclass, Palæichthyes, which approaches the batrachian type in many important parts of its organization. Thanks to the liberality of the Royal Society, the paper is illustrated by thirteen plates executed by Mr. G. H. Ford.

Passat-dust and Blood-showers.-Professor Ehrenberg, who has published from time to time the results of his examination of those microscopic bodies that are carried by the atmosphere and deposited either as passat-dust or as substances of a red colour, has collected all the observations on this subject made by him between the years 1847 the observations on this subject made by him between the years 1847 and 1870. This important memoir, consisting of 150 pages, two tables, and two plates, will appear in the forthcoming volume of the Transactions of the Berlin Academy for 1871. He enumerates all the instances of these phenomena which have been placed on record; the earliest being a case of a dust-shower which fell for ten days in the Chinese province Honan, in the year 1154 B.C. As his examination was directed chiefly to organisms contained in the dust, the analysis was entirely microscopical, not chemical. The number of analyses made by himself is altogether seventy, and he was able to distinguish not less than 460 distinct forms of organic life, among which were 194 Polygastra, 145 Phytolitharia, and 25 Polythalamia.

King-Crabs and Trilobites.-Professor E. van Beneden (Compt. rend. Soc. Entomol. Belg. October 14, 1871) has studied the embryonic development of Limitus polyphemus, and has come to the conclusion—I. That the Limili are not Crustaceans, as none of the characteristic phases of the development of Crustacea can be distinguished. guished; and that, on the other hand, their development shows the closest resemblance to that of the Scorpions and other Arachnids. 2. That the affinity between the Limuli and Trilobites cannot be doubted, and that the analogy between them is the greater in proportion as we examine them at a less advanced period of their development. 3. That the Trilobites as well as the Eurypterida and Poecilopoda must be separated from the class Crustacea, and form, with the Arachnids, a distinct division.

The Collection of Snakes in the British Museum.—From a statement made by Dr. Günther, in the January number of the Annals and Magazine of Natural History, it would appear that the national collection, which in the year 1858 contained 480 species of Snakes represented by 3990 examples, possesses now 920 species represented by 5500 examples. The number of typical specimens is 366, the total number of species of Snakes known at present being calculated at about 1100.

The Videnskabelize Meddelelser fra den naturhistoriske Forening i Kjöbenhavn for 1871 (Nos. 1-10) contain only two zoological papers:—

1. A contribution to the life-history of the Frogs and Toads of Denmark, by J. Sahlertz; and 2. Revised list of the Echinoderms inhabiting the coasts of Denmark, with information regarding their distribution on the Danish coasts, by Chr. Lütken.

The forty-eighth annual report of the Schlesischen Gesellschaft für The forty-eighth annual report of the Schlesischen Gesellschaft furvaterländische Cultur (Breslau, 1871) contains, beside notes on the skull of Galeopithecus volans by Prof. Grube, the following zoological papers :—On new species of the genus Sabella, by Prof. Grube; on the Amphicteneæ and Amphareteæ, by the same; on two new forms of Heteronereis and Pycnogonidæ, by the same. The report of the entomological section of the society contains some important papers, viz. by Dr. Gursty Issenb, on the time of sevend differentiation in the own of Dr. Gustav Joseph: on the time of sexual differentiation in the ova of Dr. Gustav Joseph: on the time of sexual differentiation in the ova of certain species of Liparis; on dimorphism of the female of *Dytiscus dimidiatus* (Bergstr.), and on the group of species allied to *Dytiscus marginalis*; on the morphology and biology of *Glyptomerus cavicola*, a blind beetle inhabiting caves; on eyeless Arthropods in Silesia. By Hr. Letzner: Contribution to the knowledge of *Trogosita mauritanica* (L.). By Eug. Schwartz: Diagnoses of certain species of Crypto-cephalus.

We hear that Mr. E. L. Layard, the well-known zoologist and author of The Birds of the Cape Colony, has been appointed H. B. M. Consul at Para. However satisfactory this appointment may be to Mr. Layard, it would have given us greater pleasure if a man of such scientific attainments had been located in a district whose fauna is less perfectly known than that of Para,

# Botany.

Dispersion of Seeds by the Wind .- A Kerner, of Innsbruck reprints a very interesting paper on this subject, from the Zeitschrift des Deutschen Alpenvereins. In order to ascertain the extent to which seeds are carried by currents of air, the author made a careful investigation of the flora of the glacier-moraines, and of the seeds found on the surface of the glaciers themselves, believing that these must indicate accurately the species whose seeds are dispersed by the agency of the wind. Of the former description he was able to identify, on five different moraines, 124 species of plants; and a careful examination of the substances gathered from the surface of the glacier showed seeds belonging to thirty-six species which could be recognised with certainty. The two lists agreed entirely in general character, and to a considerable extent also specifically, belonging, with scarcely an exception, to plants found on the declivities and mountain valleys in the immediate vicinity of the glacier—scarcely in a single instance even to inhabitants of the more southern Alps. M. Kerner's conclusion is that the distance to-which seeds can be carried by the wind, even when provided with special apparatus for floating in the air, has generally been greatly over estimated; and this is very much in accordance with the view advanced by Mr. Bentham, in his anniversary address to the Linnean Society in 1869. Along with the seeds M. Kerner found, on the surface of the glacier, more or less perfect remains of a number of insects belonging to the orders Lepidoptera, Diptera, Hymenoptera, and Coleoptera, which, like the seeds, belonged almost exclusively to species which abound in the immediate neighbourhood of the glaciers. The species of plants which are especially inhabitants of the higher mountain regions. may be divided into two classes. In the first the seed or fruit is provided with an appendage of various kinds, to enable it to be carried easily by the wind; the species possess generally a short space of life, are continually shifting their habitat, will grow where there is scarcely any soil, and especially love to establish themselves in the clefts or on the inaccessible sides of rocks; their floating apparatus appears designed rather to enable them to reach these habitats, where no other plants could establish themselves, than to be carried any great distance by the wind. The second kind are much more stationary, have a greater length of life, require a richer soil, are unprovided with any apparatus for flight, and can advance only very gradually; they are consequently much less abundant than the first kind. From the above observations, and the fact of the existence of detached localities for some of the mountain species in the Tyrolese Alps, very remote from their more abundant habitats farther south, M. Kerner draws the conclusion that at a period subsequent to the glacial epoch a warmer climate than the present over-spread that part of Europe, when the species referred to extended over-a wide area, of which the present isolated localities are the remains.

Mimicry in Plants.-In the January number of the Popular Science Review, Mr. A. W. Bennett brings forward some remarkable illustrations of this singular class of phenomena, which he divides under twoheads-those which relate to the whole habit and mode of growth, and those which refer to the development of some particular organ or part. Of the former kind a very familiar instance occurs in the extraordinary resemblance between the succulent plants which form so prominent a feature of the flora of the sandy deserts of America and Africa, belonging to the widely dissociated genera Cactus, Euphorbia, and Stapelia; and instances of this kind the writer thinks may generally be accounted for by similarity of external conditions. Far more difficult is it to explain the cases of "mimicry" which come under the second head, in which species growing either in the same or in different localities imitate one another to a marvellous degree of closeness in the form and venation of the leaf, the external appearance of the seed-vessel, or in some other particular organ. It appears impossible to suggest any explanation of this phenomenon like that which has been brought forward in the case of similar close resemblances in the animal kingdom, viz. "protective resemblance," springing up by the operation of natural selection; and these singular facts seem to deserve closer attention than they have yet received.

New Fossil Conifers.—Mr. W. Carruthers has figured and described in the number of the Geological Magazine for December 1871 two new in the number of the Coological Magazine for December 1671 two new species of fossil coniferous fruits from the Gault beds of Folkestone. He states one species to be allied to the existing Wellingtonia, and shows that they point to the existence of a coniferous vegetation on the high lands of the Upper Cretaceous period, which had a facies similar to that now existing on the mountains in the west of North America between the thirtieth and fortieth parallel of latitude. No fossil referable to Sequoia (or Wellingtonia) has hitherto been found in strata older than the Gault, and here, on the first appearance of the genus, we find it associated with pines of the same group that now flourish by its side in the New World.

# New Publications.

- BÜCHNER, P. T. Lehrbuch der anorganischen Chemie. 2. Abtheilung.
- Brunswick: Vieweg and Son.

  Goebel, K. Ueber Kepler's astronomische Anschauungen. Halle: Buchhandlung des Waisenhauses.

KOLBE, H. Moden der modernen Chemie. Leipzig: Barth. LEY, W. C. Laws of the Winds prevailing in Western Europe. Stamford.

MAXWELL, J. C. Theory of Heat. Longmans.

Moleschoff, J. Untersuchungen zur Naturlehre d. Menschen u. der Thiere. 11. Bd. 1. Hft. Giessen: Roth.

OTTO, R. Graham-Otto's Lehrbuch der Chemie. 4. Auflage. II. Band, 2. Abtheilung, 11. Lieferung. Brunswick: Vieweg. PFLEIFFER, L. Nomenclator Botanicus, ad finem 1858. Vol. I. Fasc. I. Cassellis: Sumpt. Fischer.

SCHAUFUSS, L. Nunquam Otiosus: Zoologische Mittheilungen. Zugl. Organ der Gesellsch. für Botanik und Zoologie zu Dresden. 1. Band.

Dresden: Adler.

SCHELLEN'S Spectrum Analysis. Translated from the second German edition by J. and C. Lassell. Edited by W. Huggins. Longmans. TODHUNTER, J. Researches in the Calculus of Variations. [The Adams Prize Essay, 1871.] Macmillan.

ZOOLOGICAL RECORD for 1870. Edited by A. Newton. Van Voorst.

# History.

Correspondances intimes de l'Empereur Joseph II avec son Ami, le Comte de Cobenzl, et son premier Ministre, le Prince de Kaunitz. Par Sébastien Brunner. Mayence : Kirchheim.

M. Brunner, the previous editor of two volumes of documents illustrating the reign of Joseph II., has now drawn from the imperial archives of Vienna a selected portion of the emperor's correspondence, the main body of which dates from 1782 up to February 1790, a few days before Joseph's death, and consequently covers the period of the residence of Pius VI. in Vienna, the emperor's visits both to Rome and to the Crimea, the Hungarian tumults, the Turkish war, and the revolt of the Netherlands. The predominant spirit of the volume—so predominant indeed that it comes out in every page, and may be said to give some effect of unity and sequence to an incomplete set of letters—presents itself to the reader at first sight. And this may be defined as an intense and narrow absolutism which led Joseph to make two factors only-his own will and the material at hand for executing it—the basis of political calculation, and at the same time to consider both nations and individuals in relation to himself to be nothing more than the pieces on a chessboard. This sentiment inspires one of the earliest despatches -that' to Cobenzl, then acting as his master's plenipotentiary at the congress of Teschen—in which Joseph, describing himself as "emperor and commander-in-chief of 300,000 men," frankly designates the whole staff of the imperial government as "my tools." And, turning to a letter written at the close of his reign, eleven years afterwards, we find a passage which strikingly presents the results of this thoroughgoing exercise of personal rule; speaking of his illness, he says that the firmest health must have given way under the burden of such troubles as his. "My whole situation," he adds, "the retrospect of the past, the sense of the present, the foresight of the future—all this is as bitter as possible."\* More than once during the intervening correspondence the self-same spirit shows itself fatal to the true statesman's keen and instinctive perception of adverse influences, as, for instance, in a letter dated at a time when the party of reaction against the Josephine reforms was gaining strong support and fresh impetus from the visit of Pius VI. to

Vienna in 1782. Joseph complacently sets forth how he contrives at once to show contempt for the pontiff's presence and to frustrate its object by forcing indifferent topics upon him during their interviews, to the exclusion of the serious matters at issue between them, and confidently prophesies. that "in consequence" of this personal disrespect "the fable of the mountain and mouse will be exactly illustrated by the Holy Father's singular and pompous progress." Yet events refused to justify a prediction which, even at its utterance, was falsified through one broad fact, unnoted by imperial egotism—the presence of Pius had stirred the heart of the people. The universal enthusiasm, the kneeling crowds, the distant populations which thronged the capital to see the face and take the blessing of their supreme spiritual ruler; all such plain tokens of that most vital danger to nascent reform-the evocation of a deep-seated and widespread popular reaction-were thrown away upon the revolutionary despot. Equal inability to estimate the sources. and strength of a popular movement marks the correspondence throughout the earlier stages of the Belgian revolution. The patriots are judged as wild schemers whose plans, if not carried out on the instant, will certainly be abandoned by men shrinking at the after-thought of personal consequences; the memorial of the States of Brabant (June 30, 1787) is contemptuously mentioned; "les impertinences et la mutinerie" are the terms used for an organised national resistance, and farther on its obstinate vitality is characteristically set down to the break made in Joseph's personal government during his visit to Cherson. His letter to Kaunitz. (October 4, 1787), though it takes note of one ominous sign, conveys the impression that he believed the movement dying out. A few days afterwards he wrote word to Catharine that the Belgian troubles were "coming to an end as ridiculousas their beginning." In her reply the sharp-sighted czarina hinted pretty plainly her prevision that the end was by no means so near at hand. It was to come in reality, fraught with issues at that time unlooked for by Joseph, at the close of 1789. Tidings of the first congress of the new republic, and of its negotiations with foreign powers, reached him upon his death-bed. Writing from thence to Cobenzl (January 17, 1790), he declares that all along he has had no illusions, and that the event is just what he had foreseen; "that is to say, that there is not the least hope of dealing with these people except at the head of 80,000 men."

Apart from the discussion of the Netherland affairs, the letters included in this volume, unlike those between Joseph and Kaunitz, from which M. d'Arneth has largely quoted, are provokingly brief and sterile in notices of public events. On the other hand, they fully illustrate the emperor's mode of government, especially his vehement and laborious activity in all matters, whether small or great, and throw useful light on his personal relations with his ministers. Details of espionage, a system of postal tampering, secret agency, hints suggesting petty jealousies and backstairs intrigue-these and such-like matters bring out strongly the meannesses of enlightened despotism. For Joseph himself the worst result of his personal government must have been this-that it was actually fatal to the development of bold and capable statesmen; for, as the correspondence advances, it clearly shows how the ministers whose office he had degraded to that of mere clerks of the closet—the men who were, as he says, mere "tools" and "instruments"had in truth become such things as he accounted them, and, being such, were powerless for independent action in a state emergency. When this comes in the shape of the Belgian revolt, we see him unable to trust his advisers at home; his military and civil chief commissioners in the disturbed provinces, d'Alton and Trautmannsdorf, are.

<sup>\*</sup> Dated December 5, 1789. Writing on the day following to Catharine of Russia, Joseph says:—" Ma situation, l'événement malheureux qui d'une façon aussi inconcevable m'a causé la perte des Pays-Bas, l'agression qui nous attend pour le printemps de la part du Roi de Prusse, tout cela est connu à votre Majesté impériale, et elle seule, qui connaît si bien l'amour pour l'État qui nous est confié, et les sentiments de l'honneur, pourra apprécier l'emertume mottelle de ma peine." ments de l'honneur, pourra apprécier l'amertume mortelle de ma peine."
—Joseph II. und Katherina II., ihr Briefwechsel, d'Arneth, p. 346.

divided in action, and waste irreparable time in personal jealousies, while Count Belgiojoso's helpless incapacity in the crisis is sufficiently marked by Kaunitz (p. 135).

Records which bring out the bad points of an absolute monarchy rarely set the sovereign himself in a flattering light; and accordingly M. Brunner's fresh evidence is by no means in keeping with Gross-Hoffinger's well-known panegyrical monograph of Joseph II. Indeed, it seems to reverse the picture, and we lose sight of his really noble qualities in view of the unpleasing traits presented of cynicism, arbitrary self-will, disregard for other men's feelings, tasteless parade of contempt for individuals-in one word, of habitual and manifold neglect of Montesquieu's maxim, that no prince should permit himself to put an affront on a subject. To his veteran chancellor he writes with some show of consideration; but the letters to his friend Cobenzl make a thoroughly disagreeable impression. Not only is their general tone harsh, rude, and imperious, but their style, slovenly to the last degree, gives the finishing stroke of disrespect for the person addressed. It may fairly be said that they stand in complete and grotesque contrast to the correspondence with Catharine, remarkable for its elaborate French, and still more elaborate flatteries. The closing letters, however, bear the impress of Joseph's truer and better nature, brought out by the touchstone of suffering and adversity. And his pathetic last farewell to Kaunitz reveals the royal patriot, of whom, notwithstanding all mistakes and shortcomings, it is justly written upon his grave that "Saluti publicae vixit non diu sed totus."

GEORGE WARING.

Romanian Studies. [Romänische Studien: Untersuchungen zur älteren Geschichte Romäniens. Von R. Roesler.] Leipzig: Duncker u. Humblot, 1871.

THE volume before us contains a series of researches tending to throw light on one of the obscurest points in European ethnology, the origin-and early history of the Wallachian or Romanian nation-at present increasing in numbers and influence, and of no small interest owing to its close connection with the Eastern question. Not only Wallachia and Moldavia, but parts of Transylvania, Eastern Hungary, Bessarabia, and Bukovina are inhabited by a population which, although separated from all other neo-Latin nations, speaks a language which is clearly of Roman origin. This fact, in itself interesting, leads us to look for the connections which must have subsisted between the Romanians of to-day and the ancient people from whom they derive their language. From 106 to 272 A.D. Dacia, the territory now in possession of the Wallachian population, was a province of the Roman empire, and at least partly cultivated by Roman colonists. The Romanians themselves think it a point of patriotism to maintain their descent in a direct line from these colonists, whom they believe never to have quitted the soil of Dacia. This opinion has been generally adopted in Hungary and Germany. Mr. Roesler's researches have led him to a contrary conclusion: the book before us goes to prove that the forefathers of the present Romanians did not live in Dacia, but in ancient Moesia and other parts of the Hæmus peninsula, whence they migrated across the Danube to their present seats not much earlier than the thirteenth century.

The two first chapters of Mr. Roesler's book (I. The Getae; II. The Dacii) may be called introductory, and give a survey of the ante-Roman state of things in Dacia, Thracia, and the adjacent regions. The way in which Mr. Roesler tries to solve the difficult problems connected with this part of ancient ethnology will greatly interest historians. The main interest of the book, however, lies in the third chapter, which

treats of the habitation of the Romanians in the middle ages. It is certain that Dacia contained a Latin or Roman population from 106, the date of occupation, till 272, when Aurelian relinquished the province and ceded it to the then wandering Teutonic nations, Goths and others. But it is no less certain that the Roman colonists of Dacia who would otherwise have been exposed to constant attacks from the barbarians, were conducted to the southern banks of the Danube and settled in the eastern part of Moesia and the so-called Dardania, which consequently received the names of Dacia Nova, Dacia Ripensis, or simply Dacia, and, as might be expected, was not rarely mistaken for the former Dacia. Mr. Roesler thinks that the evacuation of Dacia was a complete one, as far as such a migration can be complete. Some few of the Roman colonists may have remained, but not in such numbers as to give a right to speak of a Roman population resident in Dacia after the province had been abandoned. His principal authority is Flav. Vopiscus, v. Aurel. 39: "cum vastatum Illyricum ac Moesiam deperditam videret, provinciam Transdanuvinam Daciam a Trajano constitutam sublato exercitu et provincialibus reliquit, desperans, eam posse retineri abductosque ex ea populos in Moesia collocavit appellavitque suam Daciam quae nunc duas Moesias dividit." In opposition to this statement Wallachian historians firmly assert that the major part, or at least a considerable portion, of the colonists remained in Dacia, either taking refuge in the mountainous parts of modern Transylvania, or living in some degree undisturbed among the barbarians. This assumption, though not backed by any authorities, is in itself consistent, butand this is the strongest point of Mr. Roesler's argument -there is not a single fragment of historical evidence proving the existence of a Romanian people from the third to the thirteenth century. We look for a Romanian nation and find none, at least not there where it is supposed to have lived during that period. Yet the history of those countries, although far from being accurately known, is by no means so obliterated as to explain this marvellous fact. We know the different nations that occupied and for a time inhabited the soil of Dacia, one after the other-Vandals, Goths, Huns, &c., lastly Slavonian tribes and the Hungarians, but no mention is ever made of a Wallachian or Romanian population. Neither Constantine Porphyrogennetos, the best authority for the ethnology of the trans-Danubian countries, knows anything of them, nor are the "Vlachove" of Nestor, the Russian chronicler, the modern Wallachians, but the Franks of the Carlovingian empire. Nor when near the end of the eleventh century Transylvania became a Hungarian province are any traces to be found of the former Roman colonists supposed to have taken refuge in that country. On the contrary, the Hungarian kings thought it necessary to invite a large number of German colonists into their new province, a measure quite incomprehensible if there existed a population of Latin tongue in possession of the soil, and moreover, as Wallachian historians assert, far more advanced in civilisation than their neighbours. Further, when Bruno (about 1007) preached the Gospel in the then Petchenegian districts of modern Moldavia, he complains of the people as of the worst of heathens. "How would his heart have been gladdened if he had detected in the midst of the hostile Petchenegs a numerous Romanian population, entirely unknown to the west of Europe, a people who had shown courage enough to defend their Christianity against the heathens through many centuries." But Bruno knows of no such people, much less of an organized Christian church with priests and bishops, supposed by Wallachian authors to have been then in existence. No mention of a Romanian church is found

earlier than the fourteenth century. These arguments ex silentio could be considerably increased, and we think them sufficient to give Mr. Roesler a right to dispute the opinion hitherto prevalent about the origin of the modern Wallachians, and to conclude that their original seats are to be

looked for elsewhere.

Besides, the positive side of the question can be as satisfactorily answered. At the present day we find a numerous Wallachian population (the so-called Zinzars, Kutzo-Wallachians or Macedo-Wallachians) south of the Danube; spread over Greece, Albania, Thessaly, Western Macedonia, and Thrace, speaking a language differing only dialectically from the Wallachian tongue of Wallachia properly so called. The population can be traced back as far as the sixth century. The name of Bλάχοι is for the first time found in Georg. Cedrenus (976) to denote the modern Macedo-Wallachians. Benjamin of Tudela found a Wallachian population in Thessaly. The second Bulgarian empire (1186) was founded by Wallachians and Bulgarians in common. "These Wallachians were the remnants of the former Roman population in Moesia, combined with those Roman colonists who, emigrating from Dacia, had inhabited the cis-Danubian territories before mentioned since the third

The result of these researches is: that from the sixth century up to the present day there is no lack of evidence to prove the existence of a people speaking a Latin tongue south of the Danube, while no authority can be cited to prove the existence of the same people north of this river. Everybody would be inclined to draw the conclusion that the Romanian population now resident in Wallachia, Transylvania, &c. came from the other side of the Danube. To make this conclusion a certainty, the strongest factor remains to be mentioned—the Romanian language. If the ancient colonists of Dacia had remained in uninterrupted possession of the soil, their language must necessarily show some traces of the many idioms that have passed over the same soil. But the modern Wallachian tongue of the Danubian Principalities contains no German (Gothic) words, while expressions borrowed from the Hungarian are comparatively few and modern. On the other hand, the language is full of Greek and Slavonic elements. How could a considerable number of Greek words invade a language spoken in Dacia? -a fact easily to be explained if the people formerly inhabited the Hæmus peninsula. Of still greater importance is the Slavonic part of the Wallachian vocabulary. The Wallachians are now in contact only with the Russian (Ruthenian) population of Hungary, Bukovina, and south-western Russia, and are separated from the Bulgarians by the Danube. But the above-mentioned Slavonic elements bear marks of a Bulgarian, not of a Russian origin. Until the seventeenth century, the Bulgarian language was the only one used by government and the church. We think it evident that all this can only be explained by adopting Mr. Roesler's theory.

We have dwelt somewhat at length on this third chapter, believing it to be the most interesting, and to contain the most striking evidence, and must treat the remaining chapters in a cursory way. The fourth chapter is intended to destroy the authority of the so-called Anonymous Notary of King Bela, constantly cited by Wallachian and Hungarian authors as a trustworthy witness to their earlier history. Mr. Roesler has added to the doubts which have often been urged against the veracity and trustworthiness of this chronicler; and we think it very improbable that any serious historian, not blinded by exaggerated patriotism, will accept the accounts of the Anonymous Notary when unsupported by other authorities. The fifth chapter treats of the ethnological

position of the Bulgarians, which we pass over as not closely connected with the main question. Chapter vi. (The Earlier History of the Wallachian Voyvodship) and vii. (The Commencement of Moldavian History) may be called a continua-tion of the third chapter. The author tries to disentangle the history of the two countries from the fictions of old and recent Romanian historians, who have endeavoured to fill up the void between the third and thirteenth centuries with inventions of their own. A longer article would be necessary to give the reader an idea of the minute detail connected with these researches, and we must be content to remark that the same considerateness of judgment and a strictly historical method which pervades the whole volume make the views of Mr. Roesler in the highest degree acceptable, even to those who cannot follow him in comparing the original documents, if they deserve that name, of Wallachian Undoubtedly, Mr. Roesler's book will contribute not a little to clear and rectify the views' both of historians and of the public at large concerning the Wallachian people.

One thing we may be allowed to add. It is to be expected that Romanian writers will be very indignant at the results of Mr. Roesler's researches. But they may be consoled. If it must be denied that the modern Wallachians are the direct descendants of the ancient Roman colonists of Dacia, still another fact is undeniable: they are a people surpassing their neighbours in fecundity and power of assimilation, who have attained their present number of seven or eight millions in a comparatively short period, and spread its population by colonising and Romanising to a marvellous extent. In such circumstances exalted patriotism may wish for a noble descent and a glorious history, but such are certainly of little value in the present and future development of the nation.

A. LESKIEN.

### ÉCOLE LIBRE DES SCIENCES POLITIQUES.

THE want of systematic instruction in the various branches of political science is one of the most serious defects in the higher education of France as it is in that of our own country. existing courses on political economy and law lose much of their value by being dispersed over a number of centres, such as the École de Droit, the Collège de France, the Conservatoire des Arts et Métiers, the École des Chartes, &c., besides being deficient in many important subjects, and treating the rest in a piecemeal and arbitrary manner. To supply a new want which seems to have sprung up since the war, a number of publicists and others have combined to deliver in Paris, under the auspices of MM. Boutmy and Vinet, a systematic two-year course, beginning in the present month. The complete programme embraces ten subjects:—I. Geography and Ethnography.

2. Diplomatic History of Europe since the Peace of Westphalia.

3. Military History of Europe since Frederick the Great. 4. History of Political Economy since Adam Smith. 5. History of the Progress of Agriculture, Industry, and Commerce in Europe and America during the present century. 6. Financial History of Europe since the French Revolution. 7. Constitutional History of Europe and America since 1776. 8. History of European and American Legislation since the Civil Code.

9. History of Administration in Europe since the seventeenth century.

10. Moral and Social History since 1789.

Under the last head it is proposed to give something like an account of political theory, without which—and we may add a systematic examination of the structure and functions of the social organism, in the light of biological and psychological

science-no course can be complete.

Among the professors who will commence at once are—MM. Gaidoz, Sorel, Dunoyer, Levasseur, Janet, and Leroy-Beaulieu. The students who desire a diploma at the end of their two-year course may present *theses* to be examined by MM. Passy, Franck, and Laboulaye.

Nothing can be more important than such an enterprise as this if efficiently and strictly carried out in a scientific spirit.

EDITOR.

Intelligence.

Prof. Wilkins, of Owens College, has published a Cambridge prize-essay on *Phænicia and Israel* (Hodder and Stoughton), "which aims Prof. Wilkins, of Owens Coacy, and Stoughton), "which aims at gathering into a focus the scattered rays of light that we have from many quarters upon one of the most powerful influences that tended to mould the character of the Chosen People" (p. x.). The book is written in a clear and flowing style, and usefully supplies a gap in our historical literature. Its grand defect is that it is based on authorities which, however eminent, are now in many respects antiquated, or at any rate stand in need of a searching sceptical criticism. Something better was needed for a worthy treatment of the subject than a superficial résumé, acceptable as even this will be to many readers, of Movers, Ewald, Renan (not Rénan), and Lenormant; and it shows a surprising ignorance of the difference between the prophetic and the historic Scriptures to describe every attempt to restore the order of the former as "confident dogmatism" (p. 165).

Dr. Kiepert's new map of Epirus and Thessaly (price five shillings) has received well-deserved praise for its severely critical treatment of heterogeneous materials, ranging from the surveys of French engineers to sketches illustrative of the routes of travellers. The same able chartographer has brought out a new map of European Turkey (price

Contents of the Journals.

Bullettino dell' Instituto (Nov.) continues the account of the excavations in and about the Basilica Julia, and of those at Pompeii. One of the frescoes at Pompeii depicts the mission of Niptolemus, and the first sowing of corn.

Revue Archéologique (Nov.) gives "Amphiaraus" as a specimen article of the new Dictionnaire archéologique in preparation by Hachette and Co., the special characteristic of which is the very full employment of monuments, vases, &c., in illustration of the statements made by ancient authors.—An article on Philo's Contemplative Life made by ancient authors.—An article on Philo's Contemplative Life goes over much the same ground as De Quincey's article on the Essenes, but comes to an opposite conclusion.—Three new inscriptions from Thera afford instances of the heroa so commonly dedicated by the leading families. The tombs in the necropolis of Marzabotto, in the Apennines, on the road from Bologna to Pistoia, are shown to contain some Gaulish relics mixed up with the Etruscan, the type being that of North Caul. Did they belong to the Servines who immigrated into this North Gaul. Did they belong to the Serones who immigrated into this district ?- De Saulcy comments on some Palmyrene coins lately found. The Turkish government has garrisoned the place, and checked back the Bedouins, so that it is now possible to explore the country.—The year's work in the department of the Seine is described: of the Roman age, a theatre has been found at St.-André-sur-Cailly, and a grand mosaic at Lillebonne; of the Frank, some jewels of gold, and a coin of Theodebert I.; of later times, the statues of the Plantagenets in the cathedral of Rouen, and the tombs of the Bishop of Orkney and the Scotch nobles who were sent to negotiate Mary Stuart's marriage with the Dauphin, and died at Dieppe.

Gött. gel. Anzeigen, Dec. 6.—Earle's Philology of the English Tongue is reviewed by Pauli more favourably than has been the case in England. Dec. 13.—Scheurl's Letters are noticed by Geiger as illustrating the career of those Humanists who went with Luther a little way, and then recoiled. They also illustrate the state of things at Nuremberg.—Liebrecht analyses the second part of the Filologia e Letteratura Siciliana, which gives an account of many mystery plays, and of some of the chronicles about John of Procida and the Sicilian Vespers.—Dec. 27.—Contains one of Geiger's series of articles on the Humanists—in this case John Butzbach, a monk of Laach, and his History of a Scholar's Wanderings, which gives a curious picture of the poor scholars of the time. Mahaffy's Prolegomena to Ancient History are proposed and the content had the content and praised and the contents analysed, attention being drawn to the criticism on Thucydides' method of accounting for all historical facts on mere political grounds, passion and chance being almost excluded.
Benfey's review of Bleek's Reineke Fuchs in Afrika, and Köhler's
review of Zingerle's Tyrolese Children's Stories, add something to our
materials for this new branch of comparative science.

materials for this new branch of comparative science.

Literarisches Centralblatt (Dec. 9) notices several books on the late war, and especially praises Forbes' book.—An account of some critical editions of Schiller's works follows. Dec. 16.—Scheffer-Boichorst's reconstruction of the Annals of Paderborn is praised and upheld against Waitz' objection of "being overbold."—A notice is given of Kiepert's new maps of Greece, and of the authorities on which they are based.—Ahlwardt's account of the Arabic MSS, at Berlin is praised, especially for the notices of the poets.—Some corrections are supplied for Keil's edition of Dosithei Ars Grammatica; and Kühnast's excellent book on the Syntax of Livy is well characterized.——Dec. 30. supplied for Reff's edition of Dosiner Ars Grammatta; and Rammast's excellent book on the Syntax of Livy is well characterized. ——Dec. 30.

—Contains a notice of the thirtieth volume of the Fontes Rerum Austriacarum, which collects the Venetian ambassadors' despatches from Germany, of which Ranke has made so much use. The volume

unfortunately only gives those which now exist at Vienna, thus ex-cluding some of Ranke's chief authorities. Trieber's Enquiries into the History of the Spartan Constitution, which is really an enquiry into the sources of our knowledge about Sparta, is reviewed unfavourably in some detail by Bucheler.

Theologisches Literaturblatt (moderate Roman Catholic), Dec. 4, gives a summary of the "Old Testament literature" of the year, by Reusch.—Knittel reviews Maywald's book on the "Twofold Truth" ketsch.—Anther reviews may want a book on the "World" I rather (i.e. a regulative religion for the people, an inner philosophical meaning for the educated) as a theory of the middle ages.—A notice follows of Joel's book on the connection of Spinoza's ideas with those of previous Jewish teachers.—Loersch's Aachener Rechtsdenkmäler aus dem 13., 14. und 15. Jahrhundert is praised as illustrating the manifold development of the town constitutions of Germany in the middle ages, which must be investigated separately, general propositions about them being very fallacious. Dec. 18.—Reviews the last part of Winter's book on the Cistercians in North Germany, which shows the inevitable decline of the order. The reviewer naturally thinks the case against them somewhat overstated.

# New Publications.

ARNETH, Alfred Ritter von. Joseph II. u. Leopold von Toscana. Ihr Briefwechsel von 1781 bis 1790. 2 Bde. Wien: Braumüller. BEDELL, Life of Bishop, by his Son. Now first edited by J. E. B. Mayor. (Cambridge in the Seventeenth Century, Part III.) Cambridge: Deighton, Bell, and Co.

BEITRÄGE zur Beantwortung der Frage nach der Nationalität des V. Copernicus. Breslau: Priebatsch.

Brunner, Sebast. Correspondances de Joseph II avec Cobenzl et Kaunitz. Mainz : Kirchheim.

EBELING, F. W. Archivalische Beiträge zur Geschichte Frankreichs unter Carl IX. Leipzig: Wöller.

FOUCART, P. Mémoire sur un décret inédit de la ligue arcadienne. Paris: Lib. Franck.

FREEMAN, E. The Norman Conquest. Vol. IV. The Reign of

William the Conqueror. Clarendon Press,
FRIEDLÄNDER, L. Darstellungen aus der Sittengeschichte Roms in der Zeit von August bis zum Ausgang der Antonine. 3. Theil. Leipzig: Hirzel.

HANSETAGE, Die Recesse u. andere Akten der, von 1256 bis 1430. Bd. II. (Published by the Historical Comm.) Leipzig: Duncker u. Humblot.

Kossuth's, L., Briefe an F. M. L. Bein. 1849, März-Juni. Herg.

v. A. Makray. Pest: Heckenast.

Lugebil, K. Zur Geschichte der Staatsverfassung von Athen.

Untersuchungen. (Reprint from Jahrb. für classische Philologie.)

SCRIPTORES RERUM SILESIACARUM. 7. Bd. Historia Wratislaviensis von P. Eschenloer. Breslau: Max.

VIVENOT, Alfred Ritter von. Vertrauliche Briefe des Freiherrn von Thugut. 2 Bde. Wien: Braumüller.

# Philology.

# THE PRONUNCIATION OF LATIN.

#### VIII.

#### The Letter V.

I. PROFESSOR MAX MÜLLER'S article on the Latin letter V, in the Academy for December 15, vol. ii. p. 566, induces me to add a few supplementary observations to my former remarks (*Academy*, April 15, p. 231), bearing especially on the confusion of the mixed dental and labial forms f, v, as used in English, with the pure labial forms, which I shall continue to write f', v', and of these latter consonants with what may be termed the mixed lingual and labial English forms wh, w.

2. In my Early English Pronunciation, p. 518, I note that "the letters  $\beta$ ,  $\phi$ ," in modern Greek, "seem to be naturally pronounced by Prof. Valetta as v', f', but when he became particularly emphatic, he made them v, f," that is, his lower lip involuntarily struck the upper teeth. Again (ib. p. 549), I note with respect to Mr. Magnússon's Ice-

landic pronunciation, "V is v with so slight a contact of the lower lips with the upper teeth as to vary in effect at different times as v',  $v_j$ , and Mr. H. Sweet adds, referring to Mr. Hjaltalín's pronunciation, "I thought at first that V was v', and I was only induced to consider it as a v by the distinct statement of Mr. Hjaltalín that it was a dental sound." Previously (ib. p. 542), I note of Mr. Magnússon's F that it is "properly f, with a very mild hiss, scarcely more than a single tooth being touched by the lower lip, so that it approaches f. It has this sound only at the beginning of syllables, or before S, or when doubled. At the end of a word it falls into an equally mild v." Again (ib. p. 549), I remark "that V was not originally v," in Icelandic, "is clear to me from the combination HV, which is called wh in the southern and kwh in the northern districts of Iceland," of course according to Mr. Magnússon's oral information, kw'h representing the simultaneous and not successive pronunciation of k and wh, or rather a sound bearing to kw, the labialised k, the same relation as kh does to k. According to Mr. Melville Bell, for whose notation of Mr. Hjaltalín's pronunciation I am indebted to Mr. Sweet, he heard V, F as v, f, and both HV and KV as k + wh, which indicates a very unusual sequence, the ordinary recognised form being kh + w, which is in Scotch and Welsh rather kw'h. As a correction of my statement in the Academy, vol. ii. p. 231, col. 2, line 3, respecting Welsh pronunciation, I have lately been informed by a South Welshman who can pronounce wh, but is not always clear on w, that the Welsh CHW is not wh in South Wales, but kwh, or, as he conceived it, kh + oo, as in the north.

3. Lepsius (Standard Alphabet, 2nd edition, 1863, p. 75) says: "We ought perhaps to notice here the particular pronunciation of W in Middle Germany, where this letter is no labio-dental, formed between the lower lip and the upper teeth, as V in England, France, Northern Germany, India, &c., nor the semivowel W of the English, Arabic, and many other languages, but a pure labial sound, formed between the upper and lower lip without any oo-position" (in order to avoid theories respecting Latin sounds I use the common English representation of vowels, and hence transliterate Lepsius and other writers, where necessary) "of the lips and tongue, and without any concurrence of the teeth. This is, however, a sound which I never heard of in any language" (my italics), "except the provincial German dialects, and for this reason it needs hardly a peculiar designation in our alphabet, where, if wanted, it might be written," with a dash under a w. Lepsius accordingly gives f, v in Japanese and Magyar, of which hereafter (see Nos. 7 and 8). Dr. Brücke, himself a Lower Saxon, from the northern seaboard, writing in Vienna (where every one says f, v' and not v), says (in his Grundzüge der Physiologie und Systematik der Sprachlaute, 1856, p. 111), respecting my having called v' the German W in a previous work, that I hold it "erroneously" (irrthümlicher Weise) for the usual German W, and (ib. p. 34) says that v, "the V of the French and English," is the usual German W, but that v' occurs where qu is written, as in Quelle, Quirl, qualen, sounded with kv' for qu. He also says (ib., here translated), "We can also produce an f' by making the narrow passage through which the air has to rush in order to produce the characteristic fricative noise of a consonant, without employing the teeth, but merely by approximating the lips. This f is somewhat softer (milder) than the usual f, and is used by many people where we write a V in German (wird von manchen Leuten da angewendet, wo wir im Deutschen ein V schreiben), whereas the majority do not distinguish F and V." That is, Dr. Brücke recognises, at least dialectically in Germany, f for F, f' for V, and both v and v' for W. As regards Dutch, Dr. Gehle, minister of the Dutch Reformed Church in Austin Friars, in the City, told me that the alphabetic names of the Dutch U, V, W are ue (as in German), vai, v'ai. Heknew the English w quite well, and observed that all Dutch children in saying their alphabet made this distinction. Merkel (Physiologie der menschlichen Sprache, Leipzig, 1866, p. 209, here translated) professes that he cannot at all understand Lepsius' assertion just cited that v' is "provincial." "We Middle Germans," say he, "have certainly as much right to call the abnormal (or aberrant, abweichende) formation of W by North Germans, English, and French, provincial or dialectic, as conversely. Persons, too, that have lost their upper teeth have also, I hope, a voice in this matter." "Persons with no teeth at all can pronounce W = v' as distinctly as those with a full set." Merkel distinctly recognises f' in German, writing it V, asserting that it is used in whispers for v' or W, and (p. 210) that this is the form assumed by F in the High German PF, which combination, he thinks, was the original Greek  $\theta$ , of which opinion perhaps the Japanese treatment of the aspirate (below, No. 7) may be found to give a confirmation. But after fully recognising f, Merkel comes to the following very curious result respecting v (as distinct from v'), which I recommend to the serious consideration of those who find v the only natural sound (ib. p. 212). "The sound f cannot be vocalised, that is, united with vibrations of the vocal chords, without change of position (als solches) The organs could not help (müssten) assuming in the attempt (dabei) an intermediate position between that of f' and that of f, and separating so far that no sensible (erheblich) noise can result. In this way, on vocalised breath passing, a sound is produced which is scarcely distinguishable from the usual v', and for which the two lips are not exactly opposed (nicht genau einander gegenüber stehen), the lower lip being slightly retracted under the upper lip. It would be superfluous to have a distinct written symbol for this v, which, according to Brücke, is the usual one in German, French, and English." Accordingly he uses only V, F, W, V for f', F for f, and W for v', and also for this peculiar v, which is certainly unknown in England, whereas he is himself unable to pronounce (and notwithstanding his laborious physiological investigations apparently to conceive) the common English buzz v. All who wish to see how national habits cloud phonetic apperceptivity should read Merkel's observations on these letters (ib. pp. 208-213). Haldeman (Analytic Orthography, 1860, p. 102) truly says: "There is no certainty in the accounts of English V and German W occurring in exotic languages, for when either is mentioned, we have no proof that the observer knew the For example, although the modern Greeks asserted in the most unqualified manner the identity of their  $\beta$  with English V, they were in error, and it has been but a few years since this question was settled. In a similar manner, the Spanish grammarians are still mystified about their B and V." Prof. Haldeman, it should be observed, strongly advocates the w sound of Latin V (Elements of

Latin Pronunciation, Philadelphia, 1851, pp. 34-36).

4. The mention of Spanish B and V by Prof. Haldeman should be taken in connection with Prof. Max Müller's remark (Acad. Dec. 15, p. 567, col. 1, (2)), that v is "uniformly adopted in . . . Spanish . . . ." Now, Prince Louis Lucien Bonaparte, whose accurate phonetic know ledge of living languages is rather uncommon, and who has had much opportunity of studying Spanish sounds, supplementing my observations upon them (E. E. P. p. 802, note 2), tells me that Spanish B and V are two signs, each of which represent the same one of two sounds under the same circumstances, so that it is a matter of perfect indifference, so far as the written form is concerned, which letter

is used. When B or V is written where BB\* occurs in Italian, a clear b is sounded. Where B or V is written after a consonant, a clear b is also sounded. But where B or V is written at the beginning of a word (and not following a word ending with a consonant, on account of the preceding rule), or after a vowel in the middle of a word, the sound is always v. Compare Ortografia de la Lengua castellana compuesta por la real Academia española (Madrid, 1792), where, after acknowledging (p. 27) that B and V are commonly pronounced alike, it says that the proper mode of pronouncing V is "by striking the lower lip, accompanied by the tongue, against the upper teeth, as in case of F," an entirely theoretical direction, as is apparent from the long rules given for determining when B and when V should be written, and from the needless introduction of the tongue, as in case of my Hungarian (below, No. 8).

5. Prof. Max Müller learns from Mr. Rhŷs that Welsh possesses both v and w (ib. p. 567, col. 2; see also Acad. May 1, p. 256, col. 1). Welshmen who have -learned English, more or less accurately pronounce w. My own impression is that in unalloyed Welsh w is unknown, having always remained a simple oo.+ It is a point that requires clearing up by English ears and Welsh mouths. Ask Welshmen who cannot speak English to repeat: Would ye yield the woman Wood wooed? Even those long used to English find a difficulty with woman. The vowel oo is lingual and labial; the back of the tongue is raised nearly into the k or g position, the lips are closed nearly into the w position. English people naturally assume the w position when a vowel follows. That other nations do not, they may hear by attentive and often repeated (not casual) listening to such words as the Italian uomo, uopo, and the French ouais, ouate, ouest, oui, as contrasted with the English wa(r)m, wa(r)p, way, wattle, west, we. (The last scene in Le Duc Job, as performed by the Comédie Française in London last summer, offered an excellent study of oui.) To say w the lips approach nearer, spoiling the resonance by which alone the vowel quality oo is possible, and the greater effort necessary to produce a buzz, in which vocalised and unvocalised breath contend, drives out the lips all round the aperture, especially the parts of the lower lip on each side of the medial line, the breath being directed downwards by the position of the tongue. But on reassuming the clearly resonant position oo, after pronouncing w, we are able to say w-oo, a sound which is the despair of all Europeans who

\* Double consonants are not used in Spanish, except as digraphs to represent new sounds, as rr, ll, and nn, the last being now usually

written in the contracted form n. † Salesbury, 1567, asserts Welsh W to be always a vowel, and considers of course English W to be so also (see *E. E. P.* p. 761—the spelling is here modernised): "In English ye call it double *uu* and in Welsh we give it the name of a single *u*, but then sounding it after the Welsh we give it the name of a single u, but then sounding it after the Latin pronunciation, or else as you now sound your oo:... being always either the further or the latter part of a diphthong in English, on this wise: with awe, and in Welsh as thus: vvyth avven." The following observation of Salesbury bears on the transformation of this oo into a consonant: "And though I find in some ancient writers of for vv, yet in other I find vv in words now usually written with v or f as eithavv, for eithav or eithaf. In which kind of words, because they of South Wales use yet to keep the pronunciation of it" (Salesbury was from Denbigh in North Wales), "saying tavvly where we say taylu or tafu. I do rather use for the more indifferency to write we say tavlu or taflu, I do rather use for the more indifferency to write we say tavlu or taflu, I do rather use for the more indifferency to write v than f, even that they may the more aptly resolve it into their wonted vowel vv, and we may sound the same after our more consonant acceptation." The received notion of the pronunciation of Welsh F is v. It would be worth while ascertaining after this statement whether v' be not the real sound used by those who have not learned English. This is the more interesting as F appears as an initial mutation of B, and M, as in v brack, dv franch, f mutuch, their, thy, my cow, where the teeth seem out of place. Does the mutation PH in Welsh differ in sound from the radical FF, as in v then, her head; f on, the flowing principle? and if so, how? as f', f, or as f, f?

are not English. There is, however, another mode of making 00 into a consonant. The lips may remain in the 00 position, but the tongue be brought up to the k position, which being vocalised gives a g, modified however by the rounded lips into gw', that is the simultaneous utterance of g and oo.\* Now, in Welsh there are a very few words written with W followed by a vowel, such as: wab, a slap; wedi, then; weithian, now; weithiau, sometimes; wel, well; wela, look; wi, hey! wihi, whinny; winc, chaffinch; wo, wo! wy, of him; wybr, sky; wyd, thou art; wyf, I am; wyl, a flow; wylo, to wail; wyn, lambs; wyneb, face; wyr, a grandchild; wyrain, spreading; wysg, presence; wyt, thou art; wyth, eight, and their derivatives; in all of which I think rather oo than w will be heard when actually tested. But gwa, gwe, gwe, gwi, gwu, t gwi begin hundreds of words, while gww and ww are never found. Of course, g falls out, and w resumes its vowel power in initial mutations. I believe, therefore, that I am right in saying that no extra-Anglican European lip is now familiar with w. The diphthongal use of oo, ee, requires careful discrimination from the consonantal use of w, y. Almost all writers confound the final elements of the diphthongs in my cow with y and w. Yet these final elements are, in English, neither y, w, nor ee, oo, but that peculiar modification of ee, oo, heard in bit, foot. The effect of a diphthong is produced by running one vowel on to another in a glide, or variable sound, resulting from continuing to utter vocalised breath while passing from one vowel position to the other. For the true effect of the diphthong one of the terminal vowel sounds must be shorter than the glide. In my cow, the first element, which is the same in both words, has the stress and is remarkably brief; the second element is often very long, and has no stress; the glide is intermediate in length. The prolonged second element bears no resemblance to a prolonged y or w. But the glide from the first to the second element is identical with that leading from the first element to y or w. The syllables ăay, ăaw, can be pronounced after some practice, quite distinct from the diphthongs themselves, ending with as pure a buzz as aaz, or as. The initial short and stressless elements ee, oo, do not occur at the commencement of diphthongs in English, as, to my ears, they do in Welsh, and as they may once have done in Latin. If you say ěe + glide  $+ \bar{a}a$ ,  $\delta o + \text{glide} + \bar{a}a$ , the effect to one accustomed to y, w, is yaa, waa, and at most, after two or three hearings, he may say, you pronounce y, w, imperfectly and rather thickly, rather French fashion, and not quite like an Englishman. The very brief ee, oo, differ so slightly from the very brief buzzes y, w, that, since the glides in the former and latter cases are identical, it requires considerable practice for the ear to discriminate them sharply. And yet, in point of fact, those who habitually begin with ee, oo, seldom learn to begin properly with y, w, and conversely. It is only by such testing instances as yee, woo, which cannot commence with že, ŏo, that the fact is brought out. This being the case, those nations who use že, ŏo, habitually give them consonantal syllabic value. This is remarkable in French. There is no doubt that in Richelieu, the li is lee short and not ly, yet the e in Riche is always pronounced, just as if its omission would have brought the three consonants ch + l + y together, an almost inadmissible combination in French speech. By omitting the glide, the diphthongs are resolved into two vowels, and the shortest element then generally gains in length. An accurate knowledge of diphthongal formation is indispensable in the present enquiry.

This relation of 00 to gw explains the alliteration of G and W in Anglo-Saxon, noted as frequent by Dr. March (Anglo-Saxon Grammar, 1871, p. 224, end of art. 504).
† In Welsh, U is not 00, but a peculiar modification of &.

6. In Arabic, so far as I can recollect from the instruction received from three natives many years ago, w is used. But I have had no recent opportunity of testing the point. It is a significant fact that written woo becomes spoken oo in Arabic. Turks are said to have v and not w, and to pronounce imported Arabic words, like vizier, with v. It is worth testing for v'. Arabic leads naturally to Hebrew, but the pronunciation of the latter is entirely theoretic, and there may have been original differences between the two, similar to those between Welsh and Gaelic, or Low and High German. The system of pointing introduced in later times leads to the supposition that at least at that period 2, 2, 1 may have been b, v', w, and B, D, p, f'. Arabic is said to have f. After some recent experience, I feel doubtful of all assertions respecting f as well as v. Certainly f is a comparatively rare sound, and f may prove more common than is generally supposed. Although, on a casual hearing, especially of foreign words, an Englishman naturally assumes f, v, in place of f, v, even if the latter be really pronounced, nothing is easier than to test by the eye, and to put the question whether the teeth are touched or not by the lower lip. A wide examination of existing languages, dialectic European, and especial extra-European, is here advisable, as the following observations will show, which I have had an opportunity of making within the last few weeks.

Two young Japanese, one of whom speaks English well, were recently kind enough to go through the Japanese syllabary with me. The five Japanese vowels are, as nearly as possible, those heard in the English words baa, beer, boor, bear, bore, the last four being slight modifications (produced by the action of the R) of those heard in beet, boot, bate, boat, and we may therefore write them for the present purpose, aa, ee, oo, ai, oa. To each of these the same consonant is prefixed in the syllabary, and the compound effect is represented by a single sign. One set of five syllables is supposed to begin with h. The sounds haa, hai, hoa were heard truly as in English hart, hair, hoar. But in place of hee I heard a sound which at the time I took for ky'h (or ch in the German ich, Mädchen), but which I am on reflection inclined to suppose was yh (the English h in hue), or, very nearly, unvocalised breath forced through the ee position. German writers all confuse ky'h and yh, but they are really as distinct as kw'h and wh, and bear the same relation to unvoiced ee as the latter do to unvoiced oo. We should then have expected kw'hoo or whoo in place of hoo, but the real Japanese sound was distinctly f'oo. The speaker from whom I heard the sound had very projecting upper teeth, so that Englishmen would naturally suppose his lip could scarcely avoid them. But on the contrary, he had experienced great difficulty in acquiring the English f, and in distinct language repudiated any contact with the teeth. Yet Lepsius gives this sound as f(ib, p. 246), although Dr. Hepburn (Japanese Dictionary, 1867) recognises f'. In Aberdeen there is a well-known peculiarity of pronouncing f for wh in faar', where, faa, who, &c. Is this really f or f'? In England where we ought to have had whoo, whoom, &c., we have reversed the Japanese habit, and substituted the simple h, as hoo, hoom. These two exactly contrary tendencies should be well weighed by those who would determine a sound by "natural" in place of "national" relations. The following shows another national tendency. Dr. March (ib. p. 5) says that Anglo-Saxon HW is like wh in New England. In a private letter to me he says: "A clear and distinct hbefore the w hardly attracts the attention of a New Englander," and Mr. Bristed confirms the remark. As however h+w presents many difficulties, I ventured to suppose that the real sound was our wh, and Dr. March obligingly tells me: "In my own pronunciation of which, I set the lips for w,

then untoned breath is issued, then the parting of the lips and general movements of the organs which I have taken to be the w is made." That is, he says wh + w + ich, in place of the simple English wh + ich. This is also Professor Haldeman's analysis (Anal. Orth. p. 127, art. 602, line 2). It is similar to the usual German s + z + ee for sie, as compared with the English z + eel for zeal. In ordinary English whhave the reverse at the end of a clause as hiz + s, breedh + th, haav + f for his, breathe, halve. But the value of this example depends on Dr. March's subsequent observation: "The surd breath issued before the opening movement of w is what we New Englanders call h." That is, before oo the Japanese consider f, and before w the New Englanders consider wh to be the simple aspirate. Both have been generated by a following letter presenting effectively the same position of the organs. It can only be national as opposed to natural tendencies which generate f' in one case and wh in the other. In England we have certainly f in laugh, draft, dwarf, where there is nearly historical evidence that the process of derivation was g, gh, gwh, wh, f, f; compare also the Icelandic treatment of g (E. E. P. p. 312 and p. 543). The Japanese p series seemed to be post-aspirated in phaa, phee, phoo, the two latter not becoming pyhee, pfoo, as might have been expected, and similarly khaa, khee, khoo, not kyhee, kfoo; but this postaspiration may have been a personal peculiarity. Such undoubtedly was the pronunciation baa, vee, voo, bai, boa, which was corrected by the other speaker, whereupon the first said bee, boo, but he subsequently, and clearly habitually, fell into v'ee, v'oo. The w occurred only in waa, the simple vowels ee, oo, ai, oa, were substituted for wee, woo, wai, woa, showing probably a Japanese orthoepical difficulty. There seemed even to be some peculiarity about this w in one of the speakers. Again yaa, yoo, yioa were said, but yee, yai sank into ee, ai, also probably from orthoepical difficulty. The t, d, s series were also very peculiar for the vowels ee, oo. I heard thaa, tsy'ee (where sy' indicates simultaneous pronunciation of s and y) thai, toa; daa, dzy'ee, dai, doa; saa, sy'ee, sai, soa. But in place of oo in too, doo, soo, was uttered an exceedingly puzzling sound, which Hepburn writes z in tsz, dz, sz, but which may be imitated by tsw, dzw, sw, using the buzz of the w as a vowel. The sound was very short, and a labialised buzz was quite evident. The real sound remains in doubt. Lepsius (ib.) simply writes oo.

8. A young Hungarian, to whom I was explaining some English sounds, and who speaks English with great fluency, surprised me by finding difficulties with F and V. Csink (Hungarian Grammar, 1853, p. 2) assumes the English and Magyar F and V to be the same. I found that my pupil had no conception that he had to touch the teeth with his lower lip. When he endeavoured to imitate the sounds I gave him, he tried to make the hiss or buzz by using f', v', and putting his tongue against the teeth, producing remarkable compounds of f', th and v', dh. The direction to leave his tongue inactive and bring his lower lip against his upper teeth came to him as a revelation. I cross-examined him on the point, and he persisted that no Hungarian ever used his teeth for F and V. I requested him to ask some Hungarian friend of his in London. He did so, and reported that his friend also knew nothing of the action of the teeth. Yet Lepsius gives f, v, as the Magyar sounds (ib. p. 220). When my pupil complained of the great harshness of the English sounds, I could not help recollecting Quinctilian's "dulciùs spirat" said of Greek  $\phi$ , and his "tristis et horrida, quassa quodammodo" applied to Latin F (lib. 12, ch. 10).

9. I have not had the advantage of examining any Eng-

lishman who habitually and unintentionally confused V and

W, but it would be very desirable for those who can catch such an individual (existing palpably enough in the mind of writers and of low comedians) to determine whether they do not say v', which would probably sound as v when used for w, and as w when used for v. It is a pity old Mr. Weller, who spelled his name with a wee (Pickwick Papers, 1st ed. p. 366) cannot be put under examination. Last June, however, Mr. Bristed, of Lenox, Massachusetts, favoured me with the following information: "The inhabitants of Charleston and all the southern and south-eastern part of this state pronounce initial W, whether at the beginning of a word or a syllable, like V. Like V to me; perhaps you should call it v' or German W, which I own myself unable to distinguish from V. This peculiarity is common to all classes, except those of the upper class who have lived in Europe or at the north. They are not aware of it. I cannot find any European origin for it. It is supposed to come from the negroes. Teachers from the middle of the state have told me that the boys from the central and northern districts pronounce W in the usual and correct way." The French bivouac as compared with the German Beiwache, contains all the elements of this confusion, voo having been substituted for v'.\* The older French form guet from Wacht takes the other direction. Mr. Nicol, whose assistance I have elsewhere had to acknowledge (E. E. P. p. 724) is of opinion that the use of GU for the German W is evidence of a former pronunciation of German W as w, since g could apparently only have risen from the elevation of the back of the tongue, which is (at least generally) absent in v'. But if so, the use of gu in Italian establishes at least an ignorance of the sound of w in Italy, at a very early period. Perhaps I was wrong (E. E. P. p. 514, note) in thinking that "if the tongue is raised when sounding v' no ear would distinguish the result from w." At any rate I find that I can keep the back of my tongue firmly fixed in the oo-position, and yet distinguish w, v', solely by keeping the lower lip tense for v' and pressed in on each side the medial line, so as to direct the breath upwards. I find also that when I blow out strongly, I hollow the cheek somewhat like a clarinet player, for f', and round the cheek somewhat like a trumpet player for wh, the effect being of course greater in these voiceless forms. Mr. H. Sweet and Mr. Nicol, howthese voiceless forms. ever, incline to think that a hollow cheek belongs to the ooposition. Hence if w was unknown in Italy when gw' was invented, we should be able to have German v' and Italo-Latin v, as Prof. Max Müller prefers.

Latin V, after reading Prof. Max Müller's article in the Academy of 15th December, addressed to me a number of questions, some of which have been incidentally answered in the preceding paragraphs. Perhaps it may be of interest to the present enquiry to add brief replies to the remainder. The sound wh is only known to me as occurring in English and Icelandic. It is very probable that w may occur in Oriental languages (see above for Arabic, No. 6, and Japanese, No. 7), but it may be really a diphthongizing ov which has been taken for w (see above for Welsh, No. 5), and Lepsius probably does not accurately distinguish these sounds, which are almost universally confused, as he certainly did not distinguish f', v' (see above for Japanese, No. 7, and Magyar,

No. 8). A confusion of w with v does not seem probable to me. The English w can be distinctly pronounced so as to close a syllable, with a preceding accented short vowel (see No. 5). The German v and also f' regularly and easily close syllables in the pronunciation of my Hungarian pupil, without a vowel following. The Germans of course have no such ending, as they regularly terminate words with voiceless consonants, whatever letters be written. I believe that the modern Greeks generally pronounce ev, av, before a voiced consonant or vowel as ev, aav, and otherwise as ef', aaf', as in autòs, but there is always a possibility of more or less dentality (as noted above, No. 2). The change of 00 into dental v, as noted by Pânini, certainly shows his own pronunciation, but it was possibly as much a modernism in his time as our f in laugh, draft, dwarf, in our own. Prof. Max Müller (supra, vol. ii. p. 566, col. 2) has given two authorities for a pure labial sound in Sanskrit. If both v, v' co-exist in Germany, v as Lower and v' as Upper German, why may not both have at one time co-existed in India? But v seems certainly a more recent form than v' in Germany. Why then should it not be so both in India and Italy? As to the falling out of a dental v, the English een, eer, ill, Scotch deil, gin, for even, ever, evil, divel (old form), given, seem to show the possibility. The English w falls out in Fll, Fld, you'll, you'ld, older for ard, back ard, usual fro ard, to ard, and Greenich, Dul'ich, &c., but I cannot call to mind instances like the Actually in Magyar the verbal roots szöv, löv, riv, növ, jöv, lose their v = v' before the infinitive affix m, and lengthen their vowel from  $\ddot{o}$  to  $\delta'$ , but hiv, sziv, viv either lose or retain the v. The Latin pro(vo)rsus, ho(vo)rsum, ama(vi)sse, &c. may perhaps be compared with this Magyar custom. The Germans whom I heard while residing in Germany always seemed to use the succession k + v' and not the labialised guttural kw' for initial qu. I believe the Magyars when they spoke Latin said ekv'oos for equus. I feel no tendency for n to become m before v' or w, or even v, because no English and German syllables occur which end with -nv, -nw, -nv. But in Scotland Banff is called Bahmf (ah being rather spoken with the back of the tongue lower than for aa). In Latin the assimilation of prefixed prepositions, as ad, &c., shows that the final consonants must have been more closely connected than in English or German. This may account for impero, immotus, commotus, whereas English unprotected, unmoved, and German unbrauchbar, Unmensch, unfehlbar, unwohl, show no such tendency. The lengthening of the vowel in in-sanus, infaustus (as noted by Cicero, but I cannot recover the reference at the moment), in in before f, s, perhaps indicates a difficulty in running the n on to s or f. As a substitute for b, I should consider v' more physiologically probable than either w or v, because the change of b to v' is a minimum, whereas for v the lower lip has to be violently retracted and brought hard against the lower teeth, and for w the back of the tongue has to be raised and the lips more rounded. If any one compares pf ooee with pfooee, German pfui, he will feel the difference strongly. When we think we say pwee, for French puis, we really pronounce pw, by preparing the tongue before releasing the lips. Actually b, v' interchange in dialectic German very frequently. I do not recall any instances of b and w interchanging. I consider b much more closely related to v than to w or to v, and its relation to the two latter sounds is not direct, but indirect, through v'.

TI. This is a mere collection of materials, to which it would be out of place to add an examination of the arguments for and against the pronunciation of Latin V as w. But in connection with the foregoing the following points should be considered. Latin V and Italian V are now v in Italy and in France, but either b or v', not v, in Spain. I

The Compare the Greek ovB for Latin V in MnovBidvos for Mevianus (Corssen, i. 311). Compare also the curious remark of Salesbury (quoted in my E. E. P. p. 762—the spelling is here modernised): "Although the Germans use a vv, yet in some words sound they it (to my hearing) as the further u were a vowel, and the latter o [a?] consonant, where we the Britons sound both uu wholely together as one vowel, without any several distinction." Salesbury should mean ovv, but may have meant vvo.

cannot answer for the other Romance dialects. These sounds are not modern. The instances in Nos. 2 and 3 suggest that they were preceded by a mixed or geographically limited pronunciation as v' and v, of which the latter could have been derived from the former by emphasis (No. 2). In the time of Claudius a distinction between V followed by a vowel and followed by a consonant was felt, and a desire arose to mark it by a new sign. The former value was declared to be consonantal. Take con-sonans strictly, the name applies equally well to a consonant as now conceived (which implies an impediment in the way of strict vowel resonance) and to the stressless element of a diphthong connected with, or sounding-with, the element bearing the stress by means of the glide (see No. 5). When we find in especial that Sir Thomas Smith 1568, John Hart 1569, Bishop Wilkins 1668, all regarded English W as 00 (to the extent of writing 00-00 for woo), and that the same opinion extensively prevails at the present day, while the rejection of n from the indefinite article preceding W, as in a week, not an week (even in the Authorised Version, 1611, which generally retains an before h), shows that no such hiatus was felt in this case as in an oozy bed, we must allow that the same indistinctness of conception possibly prevailed in the minds of still older orthoepists, as Marius Victorinus, Priscian, Quinctilian, &c. We have, therefore, no right to conclude that when they said V was a consonant they meant more than that V was the stressless element of a diphthong. The cases of V and of I are precisely similar. Now Priscian (as quoted in Corssen, i. 299) says: "i quidem modo pro simplici, modo pro duplici accipitur consonante," the first in *Juno*, *Juppiter*, the second in *maius*, *peius*, *eius*, "in quo loco antiqui solebant geminare eandem i litteram et maiius, peiius, eiius, scribere, quod non aliter pronuntiari posset, quam si cum superiore syllaba prior i, cum sequente altera proferretur, ut pei-ius, ei-ius, mai-ius, nam quamvis sit consonans, in eadem syllaba geminata iungi non posset: ergo non aliter quam tellus, mannus proferri debuit, unde *Pompeiii* quoque genitivum per tria i scribebant, quorum duo superiora loco consonantium accipiebant, ut si dicas Pompelli." Now we know that the first of these i's was not a consonant in the modern sense, but only the stressless second element of a diphthong preceded by the glide. The inference is that the second was the stressless first element of a diphthong followed by the glide, and in point of fact we have precisely this effect, and not that of yy, in French paien, faience, nous louions, vous suiez, although French writers insist on the consonantal character of this i, as also on that of i in collection, cieux, matériel, aimions, vous chanteriez, &c. (Thériat, Le Phonographe, 1857, pp. 29, 30).\* In the case of Pompeiii the threefold i had really the same meaning as the Itailian j in Pompej, namely, the diphthong ei followed by i It is known that II and VV as the initials of syllables do not occur in older spelling. For the latter we have VO. Now on testing Welsh people with would, woman, woo, it will be found that they have a tendency either to say oo simply, or  $\delta o + glide + oa$ , or  $\delta o + glide$ + o. Many English say wum-an. It is therefore possible that I, V in Latin, so long as II, VV are not found as initials of syllables, were simply the vowels ee, oo, which

formed occasionally the stressless elements of diphthongs preceded or followed by the glide as the position required, and hence became con-sonantes, in the meaning attached to the word by the Latin grammarians. It is also possible that after II, VV were used as initials of syllables, a consonantal form (in the modern sense) was given to I, V, at least in those positions. This consonantal power may have gained ground. The modern Italian Giugno, &c. seem to indicate a precedent yh. The mixture of ov,  $\beta$ , in Greek transcriptions may indicate a mixed pronunciation, or a mixed conception of the sound by foreigners, leading to a confusion in spelling in the same writer, or a mixture of the alphabetic name ov with the phonetic equivalent  $\beta$ then = v' or v, but not b or w, although it had also to be used for b. The general use of  $\phi$  to transcribe F, although we are certain that the sounds were different, at least as much as v' and v, shows that we must not press Greek transcriptions too hard. The Greek combination ουου in Οὐουλτούρνος was simply impossible to a Greek, except as 00 + 00 or 00. What was the possible consonantal sound (in the modern sense) which V received when the orthography VV initial became usual? Could it have been w? Could such a conception occur to the mind of any person to whom w was not a familiar combination, that is, among Europeans, to any but Englishmen? The passage from oo to v' consists in little more than dropping of the back of the tongue. The combination v'00 is very easy, as in German Wuchs, Wund, Wunsch, Wurf, Wurm, Wurz, Wust, Wuth. The combination woo is very difficult, even to Englishmen who are familiar with w, as in woo, wood, woof, wool, and is consequently rare, and often mispronounced. The inference seems to be that when initial II was called yee, initial VV was called v'oo. From v' the passage to v and the confusion with b, or with Greek  $\beta$ , was direct and easy. The final inference would seem to be that I, V should be considered as vowels, capable of becoming the stressless element of diphthongs, so long as II, VV initial are not found. That after these were found (and probably some time before they crept into writing, which always lags after speech) y, v' were employed when I, V were the *initial* (not the *final*) stressless elements of diphthongs. That in some words, and in particular in provincial pronunciation (as in Gaul and Spain, and partially in Italy, especially after Gothic irruption), y was pushed to yh, generating dzh in Gaul (subsequently zh or French j) and parts of Italy, and gh (or kh or the Spanish j) in Spain. That V either remained provincially as v' where B followed the same course (for example in Spain, as known to Romans even in classical times), or became dentalised into v, as being the firmer form and corresponding to the familiar f. But there seems to be no time during which English w can be interpolated. As a matter of practical convenience English speakers should abstain from w in Latin, because no continental nation can adopt a sound they cannot pronounce. As a question of date (which seems much overlooked, though synchronous pronunciation is the only one admissible), if the spelling VV is used, the pronunciation v' or v at pleasure may be employed, most of the Germans taking v, and the rest of the world v. It may be noted that this overcomes the difficulty of contractions as flvv-io-rvm rex (vv giving long v), par-ie-te, compared with flv-vi-o-rvm,\* par-i-e-te; and mil-vos with mil-v-os, the diphthongizing i, v, making position, compare the French Richelieu (No. 5, at end); and also of resolutions as

<sup>\*</sup> The words of M. Jobert (Colloquial French, London, 1854, p. 42) form such an excellent commentary on Priscian's expressions that they deserve quotation: "The words chancelier, chapelier, coutelier, &c. do not appear graphically to contain a double consonant, but phonetically the i, in these words, fills the part of a consonant, in the same manner as the double I in the liquid syllables like those of piller, babiller, briller, &c.; these I's being pronounced as in pi-ić, babi-ić, bri-ić, the i's of the former words are phonetically analogous in the last syllables, their articulation being chancel-ić, coutel-ić, chapel-ić."

<sup>\*</sup> Englishmen are so accustomed to pronounce floor- that they may think it impossible to pronounce floor with a secondary accent, and without a subsequent consonant. But ruha, dress, in Magyar, is precisely in this condition, ru being short but accented, and not gliding on to h, and presents no difficulty at all to Hungarians.

sol-v-is-se for sol-vis-se, because the resolution would be an archaism preserved as Vergil's picta-i for pictae, or the frequent poetic English -ed. They are not to be explained from the habits of pronunciation prevalent at a later time. ALEXANDER J. ELLIS.

P.S.—As will be seen by the foot-note to p. 16, the above article was sent to the Academy before I had seen Prof. Munro's remarks (ib.). I think it better not to occupy further space with any observations on the few matters there suggested which I had not considered in my own paper, except the personal reference to Prof. Max Müller's pronunciation, which I had purposely passed over. Prof. Munro says, Prof. Max Müller "will not have forgotten that a few weeks ago the untutored ears of half a dozen of the best philologers in Oxford were unable to perceive the slightest difference between his English w and their own." When last I had the pleasure of hearing Prof. Max Müller speak, he was able, by an effort of attention, to pronounce w and v correctly, but he habitually used v' for both, and this was more apparent in public than in private speaking. If I mistake not, the point was made a matter of enquiry at a private meeting on another subject between Prof. Max Müller, Mr. A. Melville Bell (the author of Visible Speech), and myself, on August 25, 1865. May I suggest that the "untutored ears" at Oxford would derive every possible information on the subject from the "tutored ears" and lips of Mr. Henry Sweet?

#### THE GERMAN UNIVERSITIES AFTER THE WAR.

IT is only since the beginning of the winter term that these seats of learning can be said to have returned to their normal state. A large number of young men were in the field for nearly a year, but even those in the army of occupation obtained leave some five or six months ago to return to pursue their studies. It is very interesting to observe the effect the war has had upon the attendance as well as the spirit of the universities. With some few exceptions, they are overcrowded this winter, because many old students who would without interruption have finished their courses by this time, have matriculated again along with the freshmen of this year. Quiet and busy work has entirely replaced the anxious bustle of the camp; helmet and uniform are doffed; even a medal and its ribbon have given place to the academical caps and badges. The names of those who died for their country, engraved on marble slabs, are already hung up in the halls of their respective universities. The most remarkable fact, however, appears to be that nearly every one of the survivors, unless he has preferred to join the army for good as officer or surgeon, has resumed his academical course where he left off with the greatest eagerness. The rush into "Fachstudium" has never been stronger in Germany than at present. The old patriots of the Wars of Liberation who attended the universities soon after the peace of 1815 may deplore the total absence of that idealistic spirit which brightened or obscured the days of their youth; yet there can hardly be a better sign of a healthy national development than this decided predilection of the young generation for matter of fact. The increase or diminution of the number of students in the different places may also be taken as symptoms of some further changes. The contest between the great and small universities seems to be taking a new turn, which could hardly have been predicted a few years ago. The more expensive places, like Berlin, Bonn, and Heidelberg, are slowly going down, not always, however, from the same reasons. Berlin, which might be expected to be the great high-school of the new empire, has yielded the palm at last to Leipzig. This is to be ascribed not merely to the supposed mismanagement of the most unpopular minister of public instruction Prussia has ever had, but to the drawbacks, especially the high prices and rents; perhaps, too, the long distances unavoidable in a capital. Cities of a middle size are evidently taking the lead again. Bonn, on the other hand, besides the more luxurious style of life prevalent there, suffers at present from the interdict issued by the Archbishop of Cologne against almost all

the professors of the Roman Catholic faculty because of their anti-infallibilist tendencies; and Heidelberg still lacks a garrison in which the students may pass their year of military service. Places like Halle, Göttingen, and Tübingen, where the influence of academical establishments is supreme, and which on the whole are well provided for, have received more than their usual complement. Even some of the smallest size, like Greifswald and Marburg, continue in a highly prosperous state, which is chiefly due to the recent popularity of their faculties of medicine; whereas another class, represented by Giessen, Kiel, and Rostock, seem doomed to die of exhaustion. With them, too, the causes of decline are multifarious. A small government like that of Hesse-Darmstadt has not the means of supporting any longer the establishment at Giessen on the scale demanded by the present development in every branch of learning and science; and the old wealthy institutions at Rostock and Kiel are shunned by the Mecklenburghers and Holsteiners themselves, since they have the free choice of any university they like, whereas young men from the other parts of Germany hardly ever come to the shores of the Baltic, where life is both more expensive and slower than anywhere else. Yet Greifswald and Königsberg are to a certain extent exceptions to this rule. Jena, about fifty-five years ago the most fermenting seat of the "Burschenschaft," though not threatened exactly by a lingering death, has at last, as it were, succumbed to a musing condition of still-life. It may be hoped that the approaching reconstitution of Strasburg may prove to be the same successful experiment as Bonn, where, immediately after its foundation, the professors of name\* and celebrity as well as students from all parts of Germany began

# Intelligence.

Prof. W. D. Whitney, of New Haven, intends to publish in the next volume of the Journal of the American Oriental Society the results of a collation of a new MS. of the Atharva-Veda Prâtiçâkhya. His own edition of this Prâtiçâkhya, published in the Journal for 1862, was founded on the inaccurate and imperfect, but at that time unique, Berlin MS.

M. J. Derenbourg has been elected a member of the Institut (Académie des Inscriptions).

The Transactions of the Royal Society of Saxony for 1870 contain (pp. 227-295) the third part of Prof. Fleischer's Contributions to Arabic Grammar, viz. corrections, additions, and explanations to de Sacy's Grammaire.

# New Publications.

BHATTA NARAYANA, VENISAMHARA: Die Ehrenrettung der Königin. Ein Drama. Hrsg. v. J. Grill. Leipzig: Fues.

CURTIUS, G. Studien zur griechischen u. lateinischen Grammatik.

4. Bd. 2. Hft. Leipzig: Hirzel.

EPHEMERIS Epigraphica Corporis Inscriptionum Latinarum Supplementum. Edita jussu Instit. Archaeol. Romani. Fasc. 1. pro i-iv. Berlin: Reimer.

FUCHS, E. Die Scholien d. Bar-Hebraeus zum 23. u. 29. Psalm. Halle: B. des Waisenhauses.

HISTORICI GRAECI MINORES. Ed. L. Dindorfius. Vol. II. Menander Protector et Agathias. Teubner.

INSCRIPTIONES HISPANIAE CHRISTIANAE. Ed. Aemilius Hübner,

adjecta est Tabula Geographica. Berlin: Reimer.

MEUSEL, H. Pseudo-Callisthenes. Nach der Leidener Handschrift herausgegeben. (Reprint from Jahrb. für classische Philologie.) Teubner.

PONT, G. Origines du patois de la Tarentaide (ancienne Kentronie). Précis historiques, proverbes, chansons populaires. Paris : Maisonneuve.

STAMM's Ulfilas, oder die uns erhaltenen Denkmäler der Gothischen Sprache. Text, Wörterbuch u. Grammatik. Neu herausg. von M. Heyne. 5th Aufl. Paderborn: Schöningh.

STRATMANN, F. H. A Dictionary of the Old English Language. Compiled from writings of the 12th, 13th, 14th, and 15th centuries. Part I. Second edition. Trübner.

ZINGERLE, A. Ovidius und sein Verhältniss zu den Vorgängern und Gleichzeit. Röm. Dichtern. 3. Hft. Innsbruck: Wagner'sche Buchhg.

\* The German papers report that Professor Mommsen has accepted a chair at Strasburg. We have not yet had time to verify this.